Fact Sheet on Programmatic Example

(Note: this is just an example of the type of evidenced based or promising practice that may implement all or part of a BSK strategy.)

Strategy to be Addressed:

Support High Quality Child Care

Program Name(s):

Positive Behavior Intervention and Support (PBIS) - Project ACHIEVE

Brief Program Description:

PBIS is a systems approach to establishing the social culture and behavioral supports needed for all children in childcare, early childhood programs and/or schools to improve health and safety policies and practices, and to achieve social and academic success. It is not a specific curriculum but a group of effective practices, interventions and evidence-based implementation supports, organized into progressively intensive tiers. The more intensive tiers address the needs of children with more challenging behaviors. The process is facilitated by a knowledgeable behavioral consultant who works with an identified project team at the program/school.

Project ACHIEVE is a PBIS program based on social learning theory that can be operated in early learning environments (ages 3 – 8), and also in youth learning environments. The program focuses on social-emotional/behavioral and social skills outcomes for children; school-wide positive behavioral support systems, positive classroom climates and safety; and parent/community outreach and involvement. The program is based on the assumption that when educators/care providers across a school/program actively teach, expect and acknowledge appropriate behavior rather than suspend and expel students, the proportion of students with serious behavior problems decreases and the overall learning climate improves. The program is implemented in schools/programs over a three-year period.

Prevention Results Achieved Elsewhere or in K.C. Pilot:

Studies of Project ACHIEVE have found the following: 1) increased successful staff interactions and school social cohesion; 2) decrease in number of discipline referrals; 3) decrease in administrative actions (such as suspension/expulsion) in response to office discipline referrals; and 4) increase in academic achievement scores.

PBIS – In schools and early learning programs in the U.S. that have tested the PBIS model, the findings have been very promising, as follows: 1) reduction in discipline referrals and

suspension; 2) improved academic performance, including improvement in proportion of 3rd grade students meeting the state reading standard; 3) improved perception of school safety; 4) improved social skills and reduction in problem behavior; increased positive child behaviors & decreased negative child behaviors.

In King County, a child care consultation program pilot that worked to increase providers' knowledge and skills to help reduce challenging behaviors and increase positive social behaviors, found a decrease in teacher reports of child problem behavior and a reduction in expulsions by half, as compared to the period prior to the intervention.

Target Population and number of people served:

Can be used universally in child care programs, pre-school programs and early grades of elementary schools.

Estimated Cost to Administer:

Costs for PBIS programs are estimated at approximately $221 per child. Project ACHIEVE school-wide costs (over a three-year period) are approximately $10,305 per school, and $260,000 for 25 schools.

Estimated Cost Savings to Community:

Cost of the program per individual child is $221; with the program benefits per child at $31,741, which is a net present value benefit of $31,521 per child served in the program. The odds of achieving the net present value are 99%.

Cost values are calculated from reductions in criminal behavior and other disruptive behavior disorders, less grade repetition in school, better educational attainment.

Cost savings from these interventions are potentially very far reaching due to the findings from research that suggest that suspension and expulsion from child care programs, early learning programs and school is associated with negative long term educational and life outcomes. Stark racial and gender disparities exist in suspension and expulsion practices, with young boys of color being expelled much more frequently than other children. Improving early learning environments and outcomes, and retaining all children in those environments has the power to significantly impact equitable educational attainment and life outcomes of all children in our communities. Such improvement in long term life outcomes will likely save a myriad of societal costs in crisis services, incarceration, etc.

Project ACHIEVE

Project ACHIEVE is a comprehensive school reform and improvement program for preschool through high school (students ages 3-18 years) that focuses on students' academic, social-emotional/behavioral, and social skills outcomes; schoolwide positive behavioral support systems and school safety; positive classroom and school climates; and community and parent outreach and involvement. For students, the aim is to improve resilience, protective factors, and effective self-management skills so youth are better able to resist unhealthy and maladaptive behaviors. The aim for staff is to ensure effective instruction and classroom management as well as supports and services to students not responding with academic and behavioral success. The school aim is to help schools to be successful for all students.

Based on social learning theory and effective approaches to school reform and improvement, this schoolwide program uses professional development and ongoing technical consultation to target and reinforce critical staff skills and intervention approaches. The program incorporates a continuum of student services, including prevention, strategic intervention, and crisis management, and consists of seven interdependent components implemented over 3 years:

- Strategic planning and organizational analysis and development
- Problem-solving, response-to-intervention, teaming, and consultation processes
- Effective school, schooling, and professional development
- Academic instruction linked to academic assessment, intervention, and achievement (i.e., Positive Academic Supports and Services)
- Age-appropriate social skills instruction (i.e., Stop & Think Social Skills Program) linked to behavioral assessment, intervention, and self-management (i.e., Positive Behavioral Support System)
- Parent and community training, support, and outreach
- Data management, evaluation, and accountability

Project ACHIEVE involves the school's entire instructional, administrative, and support staff and, following training, can be implemented with resources available in most schools. Training typically involves in-service training, classroom-based demonstrations, and technical consultation and follow-up.

Project ACHIEVE has been used in public schools, alternative schools, special education centers, psychiatric and juvenile justice facilities, Head Start programs, and specialized charter schools. The research study reviewed for this summary involved kindergarten through grade 6 in public schools.

Descriptive Information

Areas of Interest	Mental health promotion
Outcomes	**Review Date: April 2009** 1: School staff perceptions of staff interactions and school cohesion 2: School staff perceptions of school discipline and safety 3: Office discipline referrals 4: Administrative actions in response to office discipline referrals 5: Academic achievement
Outcome Categories	Education Environmental change
Ages	6-12 (Childhood) 18-25 (Young adult) 26-55 (Adult)
Genders	Male Female
Races/Ethnicities	Black or African American Hispanic or Latino White

Settings	Home School
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	Since 1990, Project ACHIEVE has been implemented in more than 250 schools, reaching more than 175,000 students, school staff, community agency professionals, and parents. At least 12 studies of the program have been documented in reports or peer-reviewed journals. While Project ACHIEVE materials have been sold outside the United States, predominantly to individuals and organizations in English-speaking countries, it is not known whether any formal implementations of Project ACHIEVE have been conducted internationally.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: No Evaluated in comparative effectiveness research studies: No
Adaptations	Project ACHIEVE has been adapted for implementation in urban, suburban, and rural settings as well as in Shoshone and Arapaho (Wyoming), Chippewa (North Dakota), Apache (Arizona and New Mexico), Navajo (New Mexico), and Kenaitze (Alaska) tribal schools. It also has been adapted for use in State schools with students who have special needs (e.g., deafness, blindness, learning disabilities, behavioral disorders).
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	Universal Selective

Quality of Research

Review Date: April 2009

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the st reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

Harding, M., Knoff, H. M., Glenn, R., Johnson, L., Schrag, H., & Schrag, J. (2008). The Arkansas State Improvement Grant evaluation and outcome report to the U.S. Department of Education's Office of Special Education Programs: Improving student outcomes through the school-wide implementation of Project ACHIEVE's Positive Behavioral Support Systems. Little Rock, AR: Arkansas Department of Education, Special Education.

Supplementary Materials

Arkansas Department of Education. (2006). Arkansas growth model proposal.

Arkansas Department of Education. (n.d.). Consolidated State application accountability plan. As amended April 2003.

Arkansas Department of Education. (n.d.). Consolidated State performance report: Parts I and II for State Formula Grant Programs under the Elementary and Secondary Education Act as amended by the No Child Left Behind Act of 2001. For reporting on school year 2005-2006.

Development and Psychometric Properties of: The Scale of Effective School Discipline and Safety and the Scale of Staff Interactions and School Cohesion

Iowa Tests of Basic Skills (ITBS) Forms, A, B, and C

Kilian, J. M., Fish, M. C., & Maniago, E. B. (2006). Making school safe: A system-wide school intervention to increase student prosocial behaviors and enhance school climate. Journal of Applied School Psychology, 23(1), 1-30.

Knoff, H. M. (2005). Project ACHIEVE technical report on longitudinal outcomes from national implementation sites: Results from Flo Texas, and Maryland. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M., & Batsche, G. M. (1995). Project ACHIEVE: Analyzing a school reform process for at-risk and underachieving students. School Psychology Review, 24(4), 579-603.

Quinn, M. M., Osher, D., Hoffman, C. C., & Hanley, T. V. (1998). Safe, drug-free, and effective schools for ALL students: What Works! Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.

Outcomes

Outcome 1: School staff perceptions of staff interactions and school cohesion

Description of Measures	Perceptions of staff interactions and school cohesion were measured using the Scale of Staff Interactions and School Cohesion (SSISC), which was administered online. School staff (i.e., instructional, administrative, support staff) rated characteristics of staff in their school along a 5-point scale from 1 (excellent) to 5 (poor). The SSISC consists of 26 items across the following 4 scales: • Scale 1: Staff understanding of the mission of the school • Scale 2: Staff interactions contributing to successful organizational outcomes • Scale 3: Staff interactions contributing to successful group outcomes • Scale 4: Staff interactions contributing to successful interpersonal processes
Key Findings	In schools that participated in cohort 1 of Project ACHIEVE, staff completed the SSISC prior to implementation and after 1 and 2 years of implementation. From baseline to 1-year follow-up, schools had statistically significant improvement on all four scales of the SSISC ($p < .001$ for Scale 1, $p < .002$ for Scale 2, $p < .05$ for Scales 3 and 4). From 1- to 2-year follow-up, no statistically significant differences were found. In schools that participated in cohort 2 of Project ACHIEVE, staff completed the SSISC prior to implementation and after 1 year of implementation. From baseline to 1-year follow-up, schools had a statistically significant improvement on Scale 1 ($p < .01$), with no significant differences on the three other scales. No data were reported for comparison schools.
Studies Measuring Outcome	Study 1
Study Designs	Quasi-experimental
Quality of Research Rating	2.1 (0.0-4.0 scale)

Outcome 2: School staff perceptions of school discipline and safety

Description of Measures	Perceptions of school discipline and safety were measured using the Scale of Effective School Discipline and Safety (SESDS), which was administered online. School staff (i.e., instructional, administrative, support staff) indicated their agreement with statements along a 5-point scale from 1 (strongly agree) to 5 (strongly disagree). The SESDS consists of 58 items across the following 5 factors: • Factor 1: Teachers' effective classroom management skills • Factor 2: Students' positive behavioral interactions and respect • Factor 3: Holding students accountable for their behavior: administration and staff • Factor 4: Teachers' contribution to a positive school climate • Factor 5: School safety and security: staff, students, and school grounds
Key Findings	In schools that participated in cohort 1 of Project ACHIEVE, staff completed the SESDS prior to implementation and after 1 and 2 years of implementation. From baseline to 1-year follow-up, no statistically significant differences on any of the five factors were found. From baseline to 2-year follow-up, four of five factors showed significant improvement ($p < .05$ for Factors 2 and 4, $p < .001$ for Factor 3, $p < .01$ for Factor 5). In schools that participated in cohort 2 of Project ACHIEVE, staff completed the SESDS prior to implementation and after 1 year of implementation. From baseline to 1-year follow-up, no statistically significant differences on any of the five factors were found. No data were reported for comparison schools.
Studies Measuring Outcome	Study 1

Study Designs	Quasi-experimental
Quality of Research Rating	2.1 (0.0-4.0 scale)

Outcome 3: Office discipline referrals

Description of Measures	Office discipline referrals, expressed in the number of referrals per 100 students in the school, were measured using data from the Arkansas Department of Education's Arkansas Public School Computer Network (APSCN). Using APSCN, referral data were reported annually, following State regulation and Federal law, by every school principal in the State.
Key Findings	In six Project ACHIEVE schools that demonstrated high implementation fidelity, the average number of annual office discipline referrals per 100 students decreased from 65.50 at baseline to 42.14 after 1 year of implementation and 38.14 after 2 years of implementation. In contrast, the 17 comparison schools, which were demographically matched to intervention schools but did not implement Project ACHIEVE, averaged 43.31 office discipline referrals at baseline, 47.68 at 1-year follow-up, and 37.83 at 2-year follow-up ($p < .01$).
Studies Measuring Outcome	Study 1
Study Designs	Quasi-experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 4: Administrative actions in response to office discipline referrals

Description of Measures	Administrative actions of school principals (e.g., suspension, expulsion) in response to students' office discipline referrals, expressed in the number of administrative actions per 100 students in the school, were measured using data from the Arkansas Department of Education's APSCN. Using APSCN, administrative action data were reported annually, following State regulation and Federal law, by every school principal in the State.
Key Findings	In six Project ACHIEVE schools that demonstrated high implementation fidelity, the administrative actions per 100 students decreased from baseline to 1-year follow-up (mean change score of 83.36). In contrast, the administrative actions for the 17 comparison schools, which were demographically matched to intervention schools but did not implement Project ACHIEVE, increased from baseline to 1-year follow-up (mean change score of 171.93; $p = .043$.). From baseline to 2-year follow-up, the number of administrative actions per 100 students decreased in the Project ACHIEVE schools (mean change score of 69.70) and the comparison schools (mean change score of 120.49), with no significant difference in the change between intervention and comparison schools.
Studies Measuring Outcome	Study 1
Study Designs	Quasi-experimental
Quality of Research Rating	2.2 (0.0-4.0 scale)

Outcome 5: Academic achievement

Description of Measures	Academic achievement was measured using data on the following measures available on the Arkansas Department of Education's Web site: • Arkansas State Benchmark Tests, given in Literacy and Mathematics. These test data generally are reported as the percentage of students who score at the "below basic," "basic," "proficient," and "advanced" levels using score thresholds established by the State. • Iowa Test of Basic Skills (ITBS), given in Reading Comprehension, Math Concepts and Estimation, and Math Problem Solving and Data Interpretation. ITBS data generally are reported as the average national percentile rank earned by students in the school taking the test.
Key Findings	In six Project ACHIEVE schools that demonstrated high implementation fidelity, scores on 2 literacy

	tests (Arkansas State Benchmark Test and ITBS Reading Comprehension test) were tracked over time for 11 groups of students: 3rd-graders from 5 schools, 4th-graders from 4 schools, and 5th- and 6th-graders from 1 school. With 11 groups of students and 2 tests, there were 22 possible student group-by-test combinations. In 12 of the 22 combinations (55%), students increased their scores from baseline to the 2-year follow-up: • On the Arkansas State Benchmark Test, scores improved for 4 groups of the 3rd graders, 3 groups of the 4th graders, and the group of 5th graders. • On the ITBS, scores improved for 2 groups of the 3rd graders and 2 groups of the 4th graders. Eight of these 12 increases reached statistical significance (p values ranging from < .001 to < .05). Further, four groups of students increased their scores on the ITBS from baseline to 2-year follow-up more than their comparison school counterparts (p values < .05). Scores on 3 mathematics tests (Arkansas State Benchmark Test, ITBS Math Concepts and Estimation test, and ITBS Math Problem Solving and Data Interpretation test) were tracked over time with the same 11 groups of students. With 11 groups of students and 3 tests, there were 33 possible student group-by-test combinations. In 26 of the 33 combinations (79%), students increased their scores from baseline to the 2-year follow-up: • On the Arkansas State Benchmark Test, scores improved for all 5 groups of 3rd graders, all 4 groups of 4th graders, the group of 5th graders, and the group of 6th graders. • On the ITBS Math Concepts and Estimation test, scores improved for 4 groups of the 3rd graders and 3 groups of the 4th graders. • On the ITBS Math Problem Solving and Data Interpretation test, scores improved for 4 groups of the 3rd graders, 3 groups of the 4th graders, and the group of 5th graders. Twelve of these 26 increases reached statistical significance (p values ranging from < .001 to < .05). Further, five groups of students increased their average math score on the ITBS from baseline to 2-year follow-up more than their comparison school counterparts (p values < .05).
Studies Measuring Outcome	Study 1
Study Designs	Quasi-experimental
Quality of Research Rating	2.9 (0.0-4.0 scale)

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	6-12 (Childhood) 18-25 (Young adult) 26-55 (Adult)	51% Male 49% Female	55% White 40% Black or African American 5% Hispanic or Latino

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating

1: School staff perceptions of staff interactions and school cohesion	1.8	2.0	2.0	1.8	2.0	3.0	**2.1**
2: School staff perceptions of school discipline and safety	1.8	2.0	2.0	1.8	2.0	3.0	**2.1**
3: Office discipline referrals	1.8	2.0	2.0	2.5	2.0	2.8	**2**
4: Administrative actions in response to office discipline referrals	1.8	2.0	2.0	2.5	2.0	2.8	**2.2**
5: Academic achievement	4.0	4.0	2.0	2.5	2.0	2.8	**2.9**

Study Strengths

Standardized instruments with good psychometric properties were used in measuring academic achievement.

Study Weaknesses

Psychometric information was not adequately documented for some measures. The majority of the intervention schools did not implement the program with high fidelity. During the implementation of one intervention component, observations of a "master trainer/consultant" were conducted, but results of these observations were not presented. The researchers did not discuss how they handled missing data associated with the intervention schools. The data analysis did not account for some confounding variables. For example, intervention schools were matched with controls, yet some differences at baseline existed (e.g., on average, intervention schools had 50% more office disciplinary referrals than comparison schools). No analysis of covariance was conducted to examine the impact of other potential confounding variables, such as demographic characteristics.

Readiness for Dissemination

Review Date: April 2009

Materials Reviewed

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the intervention and the availability of additional, updated, or new materials.

Knoff, H. M. (2001). The Stop & Think Social Skills Program: Grades 2-3 instructional package. Longmont, CO: Sopris West Educational Services.

Knoff, H. M. (2001). The Stop & Think Social Skills Program: Grades 4-5 instructional package. Longmont, CO: Sopris West Educational Services.

Knoff, H. M. (2001). The Stop & Think Social Skills Program: Teacher's manual grades preK-1. Longmont, CO: Sopris West Educational Services.

Knoff, H. M. (2001). The Stop & Think Social Skills Program: Teacher's manual grades 2-3. Longmont, CO: Sopris West Educational Services.

Knoff, H. M. (2001). The Stop & Think Social Skills Program: Teacher's manual grades pre 6-8. Longmont, CO: Sopris West Educational Services.

Knoff, H. M. (2005). Teaching children to stop & think at home: A parents' guide to teaching good behavior [DVD]. Little Rock, AR: Project ACHIEVE.

Knoff, H. M. (2005). The Stop & Think parenting book: A guide to children's good behavior. Longmont, CO: Sopris West Educational Services.

Knoff, H. M. (2007). Developing and implementing the behavioral matrix: Establishing school-wide behavioral standards and benchmarks for student accountability. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2007). Guiding comprehensive school improvement: The step-by-step Project ACHIEVE implementation book of surveys, forms, and questionnaires. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2007). More Stop & Think social skills and steps: Classroom and building routines and scripts from preschool to high school. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2007). Time-out in the classroom: A step-by-step guide for consistent, educative, and effective implementation. Little Rock,

AR: Project ACHIEVE Press.

Knoff, H. M. (2008). APPRAISE: Action plan for Project ACHIEVE implementation success and evaluation. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2008). Implementing response-to-intervention at the school, district, and State levels: Functional assessment, data-based problem solving, and evidence-based interventions. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2008). Project ACHIEVE end-of-year articulation process. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2008). The Project ACHIEVE implementation integrity self-evaluation (PRAI/ISE). Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2009). Guiding comprehensive school improvement: An overview of e-books, products, documents, and resources to facilitate Project ACHIEVE implementation. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M. (2009). Implementing effective school-wide discipline and behavior management systems: Increasing academic engagement and achievement, decreasing teasing and bullying, and keeping your school and common areas safe. Little Rock, AR: Project ACHIEVE Press.

Project ACHIEVE. (2003). Building strong schools to strengthen student outcomes: Positive behavioral approaches for schools, staff, students, safety, and success [DVD]. Little Rock, AR: State of Arkansas Department of Education.

Project ACHIEVE. (2007). The Stop & Think songbook [CD]. Charlottesville, VA: Core Knowledge Foundation.

Project ACHIEVE. (n.d.). Core Knowledge Foundation: Early childhood program. Autonomy, social skills and work habits [PowerPoint slides]. Little Rock, AR: Author.

Project ACHIEVE. (n.d.). Core Knowledge preschool posters. Longmont, CO: Sopris West Educational Services.

Project ACHIEVE. (n.d.). Discipline Scale--Rating Scale. Little Rock, AR: Author.

Project ACHIEVE. (n.d.). Partners in Literacy: Arkansas Parent Training and Information Network/Arkansas State Improvement Grant [PowerPoint slides]. Little Rock, AR: Author.

Project ACHIEVE. (n.d.). Staff Interactions Scale--Rating Scale. Little Rock, AR: Author.

Project ACHIEVE. (n.d.). Stop & Think parents slides and handouts [PowerPoint slides]. Little Rock, AR: Author.

Project ACHIEVE. (n.d.). Stop & Think Social Skills Program order form. Longmont, CO: Sopris West Educational Services.

Project ACHIEVE Web site, http://www.projectachieve.info

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
3.7	4.0	3.9	**3.9**

Dissemination Strengths

Implementation materials are comprehensive. "Blueprints," planning worksheets, and checklists facilitate navigation through the many processes required for implementation. The program developer requires new sites to conduct an organizational analysis and needs assessment prior to implementation. The developer offers comprehensive training using multiple training methods and formats. Multiple quality assurance tools, in both paper and electronic formats, are available and are supported by on-site consultation.

Dissemination Weaknesses

The volume of highly detailed and technical materials may be overwhelming to prospective implementers. Electronic versions of the many

forms, assessment instruments, and other tools are not readily available.

Costs

The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items (including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

Item Description	Cost	Required by Developer
Implementing Response-to-Intervention at the School, District, and State Levels: Functional Assessment, Data-Based Problem Solving, and Evidence-Based Academic and Behavioral Interventions (book)	$39.95 each	Yes
Implementing Effective School-Wide Student Discipline and Behavior Management Systems: Increasing Academic Engagement and Achievement, Decreasing Teasing and Bullying, and Keeping Your School and Common Areas Safe (book)	$29.95 each	Yes
More Stop & Think Social Skills and Steps: Classroom and Building Routines and Scripts From Preschool to High School (book)	$34.95 each	Yes
Holding Students Responsible for Their School and Classroom Behavior: Developing a School-Wide Accountability System To Encourage Student Self-Management and Staff Consistency (book)	$34.95 each	Yes
Changing Student Behavior by Linking Office Discipline Referrals to a Strategic Time-Out Process: A Step-by-Step Implementation Guide to the Effective Use of Classroom Consequences (book)	$29.95 each	Yes
Building Strong Schools To Strengthen Student Outcomes: The Project ACHIEVE Forms Book	$59.95 each	Yes
Grade-level classroom sets	$180 each	Yes, at least one per grade level required
Support materials for school	$250 per school	Yes
The Stop & Think Parent Book: A Guide to Children's Good Behavior (with DVD)	$59.95 each	Yes
The Stop & Think Social Skills Songbook (CD) with posters	$75 each	Yes, required for preschool-grade 2
5-12 days of on-site training	$2,250-$3,000 per day depending on site location, plus travel expenses	Yes
Off-site training via conference call or Skype	$250-$300 per hour	Yes
Project ACHIEVE Technical Assistance Papers	Free	Yes
Parent Literacy Training PowerPoint	Free	Yes
Parent Home Discipline, Behavior Management, and Stop & Think Social Skills Training PowerPoint	Free	Yes
The Seven Sure Solutions to School-Based Mental Health Services Success: The Necessary Collaboration Between School and Community Providers (book)	Free	Yes
Building Strong Schools To Strengthen Student Outcomes 12-DVD Training Series	Free	Yes
Off-site consultation via conference call or Skype	$250-$300 per hour	Yes

On-site consultation	$2,250-$3,000 per day depending on site location, plus travel expenses	Yes
Scale of Staff Interactions and School Cohesion	Free	Yes
e of Effective School Discipline and Safety	Free	Yes
The PRAIISE--Project ACHIEVE Implementation Integrity and Self-Evaluation	Free	Yes
The APPRAISE--Action Plan for Project ACHIEVE Implementation Success and Evaluation	Free	Yes

Replications

Selected citations are presented below. An asterisk indicates that the document was reviewed for Quality of Research.

Killian, J. M., Fish, M. C., & Maniago, E. B. (2006). Making school safe: A system-wide school intervention to increase student prosocial behaviors and enhance school climate. Journal of Applied School Psychology, 23(1), 1-30.

Knoff, H. M. (2005). Project ACHIEVE technical report on longitudinal outcomes from national implementation sites: Results from Florida, Texas, and Maryland. Little Rock, AR: Project ACHIEVE Press.

Knoff, H. M., & Batsche, G. M. (1995). Project ACHIEVE: Analyzing a school reform process for at-risk and underachieving students. School Psychology Review, 24(4), 579-603.

Contact Information

To learn more about implementation or research, contact:
Howard M. Knoff, Ph.D., NCSP
(501) 312-1484
knoffprojectachieve@earthlink.net

...ider these Questions to Ask (PDF, 54KB) as you explore the possible use of this intervention.

Web Site(s):

- **http://www.projectachieve.info**

Washington State Institute for Public Policy

Benefit-Cost Results

School-wide positive behavior programs

Benefit-cost estimates updated December 2014. Literature review updated June 2014.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our technical documentation.

Program Description: Some K–12 schools operate school-wide student behavior improvement programs as one way to focus the school environment on learning (rather than discipline or other issues). These programs are often described as "positive behavior" interventions or systems and include specific programs such as School-wide Positive Behavioral Interventions and Supports, Positive Action, and the Responsive Classroom. The programs encourage pro-social behavior for all students. (In contrast, other interventions target problem behaviors among troubled students who are not the focus of this analysis.) School-wide behavior programs typically include a specialized curriculum, professional development for teachers and staff, and encouragement of and rewards for positive behaviors such as being on time and listening in the classroom.

Benefit-Cost Summary

Program benefits	
Participants	$14,892
Taxpayers	$7,631
Other (1)	$8,700
Other (2)	$518
Total	$31,741
Costs	($221)
Benefits minus cost	$31,521

Summary statistics	
Benefit to cost ratio	$143.98
Benefits minus costs	$31,521
Probability of a positive net present value	99 %

The estimates shown are present value life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2013). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	$0	$584	$1,684	$294	$2,562
Labor market earnings (test scores)	$14,957	$6,380	$7,393	$0	$28,731
K-12 grade repetition	$0	$157	$0	$79	$235
Health care (educational attainment)	($65)	$510	($377)	$257	$325
Adjustment for deadweight cost of program	$0	$0	$0	($111)	($111)
Totals	**$14,892**	**$7,631**	**$8,700**	**$518**	**$31,741**

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization and the economic spillover benefits of improvement in human capital outcomes. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

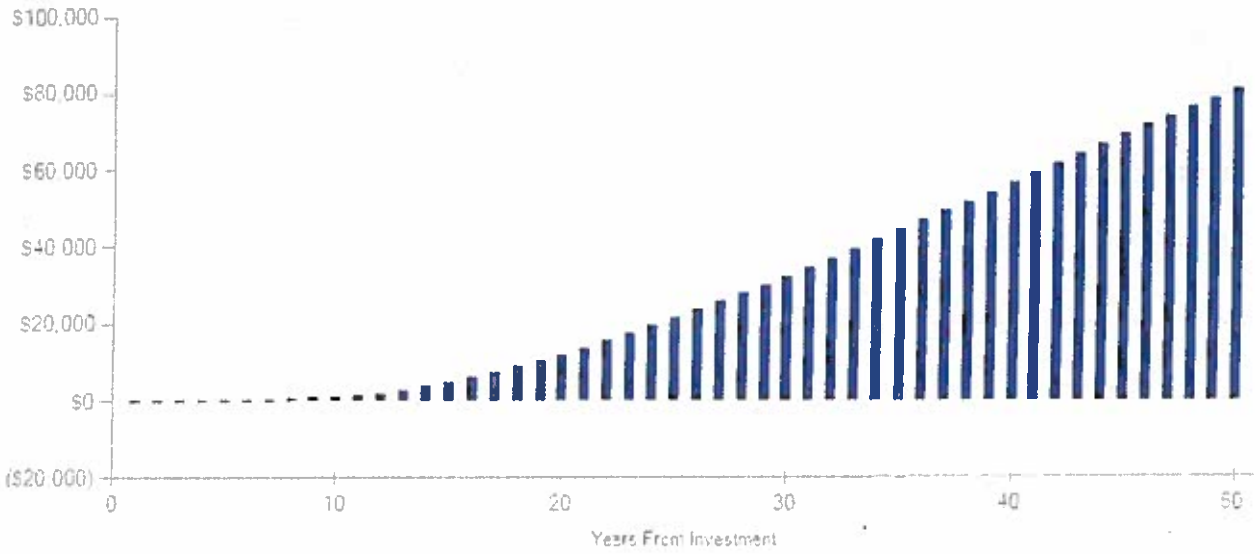
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$221	1	2013	Present value of net program costs (in 2013 dollars)	($221)
Comparison costs	$0	1	2013	Uncertainty (+ or - %)	10 %

Costs are WSIPP estimates based on a model for the total cost for implementation as described in Bloingen, B.A., Harbaugh, W.T., Singell, L.D., Horner, R.H., Irvin, L.K., & Smolkowski, K.S. (2008). Application of economic analysis to school wide positive behavior support (SWPBS) programs. *Journal of Positive Behavior Interventions, 10*(1), 5-19. The cost estimate assumes district wide implementation of a positive behavior program in ten schools. We calculate the value of staff time using average Washington State compensation costs (including benefits) as reported by the Office of the Superintendent of Public Instruction. To calculate a per student annual cost, we use the average number of students per school in Washington's prototypical schools formula.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our **technical documentation**.

Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	7	33784	0.452	0.001	0.403	0.103	9	0.242	0.113	17
Crime	Primary	2	12736	-0.644	0.001	-0.148	0.054	9	-0.148	0.054	19
K-12 grade repetition	Primary	1	5754	-0.307	0.001	-0.307	0.007	9	-0.307	0.007	17
High school grad via test scores	Primary	n/a	0	n/a	n/a	0.065	0.031	18	0.065	0.031	18
Suspensions/expulsions	Primary	1	5754	-0.318	0.001	-0.318	0.007	9	-0.318	0.007	18

Citations Used in the Meta-Analysis

Flay, B.R., Allred, C.G., & Ordway, N. (2001). Effects of the positive action program on achievement and discipline: Two matched-control comparisons. *Prevention Science, 2*(2), 71-89.

Horner, R.H., Smolkowski, K., Todd, A.W., Esperanza, J., Sugai, G., Eber, L., & Nakasato, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions, 11*(3), 133-144.

Rimm-Kaufman, S., Fan, X., Chiu, Y., & You, W. (2007). The contribution of the Responsive Classroom Approach on children's academic achievement: Results from a three-year longitudinal study. *Journal of School Psychology, 45*, 401-421.

Snyder, F., Vuchinich, S., Acock, A., Washburn, I., Beets, M., & Li, K. (2010). Impact of the Positive Action program on school-level indicators of academic achievement, absenteeism, and disciplinary outcomes: A matched-pair, cluster randomized, controlled trial. *Journal of Research on Educational Effectiveness, 3*(1), 26-55.

For further information, contact:
(360) 586-2677, institute@wsipp.wa.gov

Printed on 03-30-2015

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
U.S. DEPARTMENT OF EDUCATION

POLICY STATEMENT ON EXPULSION AND SUSPENSION POLICIES IN EARLY CHILDHOOD SETTINGS

PURPOSE

The purpose of this policy statement is to support families, early childhood programs, and States by providing recommendations from the U.S. Departments of Health and Human Services (HHS) and Education (ED) for preventing and severely limiting expulsion and suspension practices in early childhood settings.[1] Recent data indicate that expulsions and suspensions occur at high rates in preschool settings.[2,3,4] This is particularly troubling given that research suggests that school expulsion and suspension practices are associated with negative educational and life outcomes.[5,6,7] In addition, stark racial and gender disparities exist in these practices, with young boys of color being suspended and expelled much more frequently than other children.[2,3,4] These disturbing trends warrant immediate attention from the early childhood and education fields to prevent, severely limit, and work toward eventually eliminating the expulsion and suspension – and ensure the safety and well-being – of young children in early learning settings.[8]

This joint HHS and ED policy statement aims to:

- Raise awareness about expulsion, suspension, and other exclusionary discipline practices in early childhood settings, including issues of racial/national origin/ethnic and sex disparities and negative outcomes for children associated with expulsion and suspension in the early years;
- Provide recommendations to early childhood programs and States on establishing preventive, disciplinary, suspension, and expulsion policies and administering those policies free of bias and discrimination;
- Provide recommendations on setting goals and using data to monitor progress in preventing, severely limiting, and ultimately eliminating expulsion and suspension practices in early childhood settings;
- Highlight early childhood workforce competencies and evidence-based interventions and approaches that prevent expulsion, suspension, and other exclusionary discipline practices, including early childhood mental health consultation and positive behavior intervention and support strategies;
- Identify free resources to support States, programs, teachers, and providers in addressing children's social-emotional and behavioral health, strengthening family-program relationships,

---

[1] Early childhood programs or early childhood settings include any program that provides early care and education to young children birth through age five, including, but not limited to private child care, Head Start, and public, private, and faith-based Pre-K/preschool programs.
[2] Gilliam, W. S. (2005). Prekindergarteners left behind: Expulsion rates in state prekindergarten systems. New York, NY: Foundation for Child Development.
[3] U.S Department of Education Office for Civil Rights (2014). Data Snapshot: Early Childhood Education.
[4] Gilliam, W.S., & Shahar, G. (2006). Preschool and child care expulsion and suspension: Rates and predictors in one state. Infants & Young Children, 19, 228–245.
[5] Lamont, J. H., Devore, C. D., Allison, M., Ancona, R., Barnett, S. E., Gunther, R., ... & Young, T. (2013). Out-of-school suspension and expulsion. Pediatrics, 131(3), e1000-e1007.
[6] Petras, H., Masyn, K. E., Buckley, J. A., Ialongo, N. S., & Kellam, S. (2011). Who is most at risk for school removal? A multilevel discrete-time survival analysis of individual- and context-level influences. Journal of Educational Psychology, 103, 223.
[7] American Psychological Association, Zero Tolerance Task Force Report (2008). An evidentiary review and recommendations.
[8] It should be noted that a long-standing and continuing practice in Head Start is to not expel or suspend any child.

increasing developmental and behavioral screening and follow-up, and eliminating racial/national origin/ethnic, sex, or disability biases and discrimination in early learning settings;[9] and
- Identify free resources to support families in fostering young children's development, social-emotional and behavioral health, and relationships.

This policy statement is part of a series of Federal actions that aim to prevent, severely reduce, and ultimately eliminate expulsion and suspension in early childhood settings, and more broadly, to improve school climates and discipline across the educational spectrum. This statement follows the January 2014 release of the Department of Education's *Guiding Principles: A Resource Guide for Improving School Climate and Discipline*, which provides recommendations for reducing expulsion, suspension, and disciplinary removals in K-12 settings. The *Guiding Principles* articulated in that practice guide are as follows:

- Create positive climates and focus on prevention;
- Develop clear, appropriate, and consistent expectations and consequences to address disruptive student behaviors; and
- Ensure fairness, equity, and continuous improvement.

Although early childhood settings differ in context from K-12 settings, the *Guiding Principles* are applicable to both, such that focusing on prevention, developing and communicating clear behavioral expectations, and ensuring fairness, equity, and continuous improvement, can and should be applied across settings where children learn. In addition to this policy statement, HHS and ED are working together to raise awareness of the issue, encourage State and local policy development, invest in professional development for the early childhood workforce, disseminate resources to support families, programs, and States, and enforce Federal civil rights law that prohibit discriminatory discipline practices.[9] We want to work toward a goal of ensuring that all children's social-emotional and behavioral health are fostered in an appropriate high-quality early learning program, working toward eventually eliminating expulsion and suspension practices across early learning settings.

OVERVIEW

The beginning years of any child's life are critical for building the early foundation of learning, health and wellness needed for success in school and later in life. During these years, children's brains are developing rapidly, influenced by the experiences, both positive and negative, that they share with their families, caregivers, teachers, peers, and in their communities.[10] A child's early years set the trajectory for the relationships and successes they will experience for the rest of their lives, making it crucial that children's earliest experiences truly foster – and never harm – their development. As such, expulsion and suspension practices in early childhood settings, two stressful and negative experiences young children and their families may encounter in early childhood programs, should be prevented, severely limited, and eventually eliminated. High-quality early childhood programs provide the positive experiences that nurture positive learning and development.

---

[9] ED's Office for Civil Rights and HHS' Office for Civil Rights enforce several Federal civil rights laws that prohibit discrimination in early childhood programs receiving Federal financial assistance from their respective departments, including: Title VI of the Civil Rights Act of 1964 (Title VI), 42 U.S.C. §§ 2000d - 2000d-7 (prohibiting discrimination based on race, color, or national origin by recipients of Federal financial assistance); Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. §§ 1681 – 1688 (prohibiting discrimination based on sex by recipients of Federal financial assistance); and Section 504 of the Rehabilitation Act of 1973 (Section 504), 29 U.S.C. § 794 (prohibiting discrimination based on disability by recipients of Federal financial assistance. ED, HHS, and the Department of Justice share authority to enforce Title II of the Americans with Disabilities Act, 42 U.S.C. §§ 12131 – 12134, which prohibits discrimination based on disability by state and local governments, regardless of whether they received Federal financial assistance. In addition, the Department of Justice enforces Title III of the American with Disabilities Act, 42 U.S.C. §§ 12181 – 12189, which prohibits disability discrimination in most private early childhood programs.

[10] National Research Council and Institute of Medicine (2000) From Neurons to Neighborhoods: The Science of Early Childhood Development. Committee on Integrating the Science of Early Childhood Development. Jack P. Shonkoff and Deborah A. Phillips, eds. Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, D.C.: National Academy Press.

Suspension and expulsion can influence a number of adverse outcomes across development, health, and education. Young students who are expelled or suspended are as much as 10 times more likely to drop out of high school, experience academic failure and grade retention, hold negative school attitudes, and face incarceration than those who are not.[5,6,7] While much of this research has focused on expulsion and suspension in elementary, middle, and high school settings, there is evidence that expulsion or suspension early in a child's education is associated with expulsion or suspension in later school grades.[11]

Not only do these practices have the potential to hinder social-emotional and behavioral development, they also remove children from early learning environments and the corresponding cognitively enriching experiences that contribute to healthy development and academic success later in life. Expulsion and suspension practices may also delay or interfere with the process of identifying and addressing underlying issues, which may include disabilities or mental health issues. Some of these children may have undiagnosed disabilities or behavioral health issues and may be eligible for additional services, but in simply being expelled, they may not receive the evaluations or referrals they need to obtain services. For example, the source of challenging behavior may be communication and language difficulties, skills that can be improved through early assessment and intervention services. In these cases, appropriate evaluation and follow-up services are critical, but less likely if the child is expelled from the system. Finally, expulsions may contribute to increased family stress and burden. In many cases, families of children who are expelled do not receive assistance in identifying an alternative placement, leaving the burden of finding another program entirely to the family. There may be challenges accessing another program, particularly an affordable high-quality program. Even in cases where assistance is offered, often there is a lapse in service which leaves families, especially working families, in difficult situations.[12]

Furthermore, if administered in a discriminatory manner, suspensions and expulsions of children may violate Federal civil rights laws. ED and the Department of Justice recently issued guidance explaining the obligation of recipients of Federal financial assistance to administer student discipline without regard to race, color, or national origin.[13] In addition, early childhood programs must comply with applicable legal requirements governing the discipline of a child for misconduct caused by, or related to, a child's disability, including, as applicable, implementing reasonable modifications to policies, practices, or procedures to ensure that children with disabilities are not suspended or expelled because of their disability-related behaviors unless a program can demonstrate that making such modifications would result in a fundamental alteration in the nature of a service, program, or activity.[14] If the child's behavior impedes the child's learning, or that of others, the IEP Team[15] must consider behavioral intervention strategies, including the use of positive behavioral interventions and supports, when developing the initial IEP, or modifying an existing IEP, so as to reduce the need for discipline of a child with disabilities and avoid suspension or expulsion from a preschool program. In addition, preschool children with disabilities aged three through five who are eligible for services under the IDEA are entitled to the same disciplinary protections that apply to all other IDEA-eligible children with disabilities, and may not be subjected to impermissible disciplinary changes of placement for misconduct that is caused by or related to their disability, and must continue to receive educational services consistent with their right to a free appropriate public education (FAPE) under the IDEA.[16]

Data released over the past decade have shown high rates of expulsion and suspension in early childhood programs, with variability in rate depending on the setting.[2,3,4] For example, a nationally representative

---

[11] Raffaele Mendez, L. (2003). Predictors of suspension and negative school outcomes: A longitudinal investigation. New Directions for Youth Development, 99, 17-33.

[12] Van Egeren, L.A., Kirk, R., Brophy-Herb, H.E., Carlson, J. S., Tableman, B. & Bender, S. (2011). An Interdisciplinary Evaluation Report of Michigan's Child care Expulsion Prevention (CCEP) Initiative. Michigan State University.

[13] ED Office for Civil Rights and DOJ, Dear Colleague Letter on the Nondiscriminatory Administration of School Discipline, at 3-4 (2014), www.ed.gov/ocr/letters/colleague-201401-title-vi.pdf

[14] 34 C.F.R. §§ 104.4, 104.38; 28 C.F.R. § 35.130(b)(1), (7).

[15] 34 C.F.R. §300.321

[16] 34 CFR §§300.530 through 300.536 (IDEA's disciplinary protections) and 34 CFR §§300.101 and 300.17 (FAPE).

study published in 2005 found that over 10% of preschool teachers in state-funded prekindergarten programs reported expelling at least one preschooler in the past year: a rate more than three times higher than estimates for teachers of K-12 public school students.[2] A 2006 study examined expulsion in child care programs not participating in a State prekindergarten system, in one State. In these settings, 39% of preschool teachers reported expelling a child in the past year.[4] Experts have suggested that rates are high because early education is voluntary, many programs do not have established policies, and often these programs have less infrastructure and workforce support than do public schools or more structured early education programs, like Head Start. This suggests that established policies and investments in supports for programs may help reduce these rates.

Data also indicate that specific groups of children are being disproportionately expelled and suspended from their early learning settings; a trend that has remained virtually unchanged over the past decade.[2,3,4] Recent data out of ED indicate that African-American boys make up 18% of preschool enrollment, but 48% of preschoolers suspended more than once. Hispanic and African-American boys combined represent 46% of all boys in preschool, but 66% of their same-age peers who are suspended. Analyses of boys, compared to girls, indicated that they make up 79% of preschoolers suspended once, and 82% of preschoolers suspended multiple times.[3] Although *why* these gender and racial disparities exist in early childhood settings has not yet been empirically investigated, research demonstrating similar disparities in school-aged children has found that potential contributors may include uneven or biased implementation of disciplinary policies, discriminatory discipline practices, school racial climates, and under-resourced, inadequate education and training for teachers, especially in self-reflective strategies to identify and correct potential biases in perceptions and practice.[5,7,17,18]

To that end, ensuring that the early childhood workforce is adequately trained, supported, and prepared to help all children excel is a key strategy in limiting and eventually eliminating early expulsion and suspension. Unfortunately, many teachers and providers do not have sufficient training and support to meet this goal. The 2012 National Survey of Early Care and Education indicates that only about 20% of teachers and providers serving children under five reported receiving specific training on facilitating children's social and emotional growth in the past year.[19] Other studies have found that early learning teachers report that coping with challenging behavior is their most pressing training need.[20,21] Aside from not having adequate support in fostering social-emotional development and appropriately responding to challenging behavior, without enough training in child development, it may be difficult to distinguish behaviors that are inappropriate from those that are developmentally age appropriate. Early childhood experts posit that developmentally inappropriate behavioral expectations may lead to inappropriate labeling of child behavior as challenging or problematic.[22] Furthermore, teachers must also be trained to recognize behaviors that may be a manifestation of a child's disability. This training is essential to ensure that children with disabilities receive reasonable modifications for their disabilities and are not impermissibly suspended or expelled for behaviors caused by disabilities.[9,14]

Early suspension, expulsion, and other exclusionary discipline practices contribute to setting many young children's educational trajectories in a negative direction from the beginning. This has long-term consequences for children, their families, and the schools that they will later attend. More broadly, there

---

[17] Gregory, A., Skiba, R. J., & Noguera, P. A. (2010). The Achievement Gap and the Discipline Gap Two Sides of the Same Coin?.? Educational Researcher, 39(1), 59-68.

[18] Skiba, R. J., Horner, R. H., Chung, C. G., Rausch, M., May, S. L., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. School Psychology Review, 40(1), 85

[19] National Survey of Early Care and Education. http://www.acf.hhs.gov/programs/opre/research/project/national-survey-of-early-care-and-education-nsece-2010-2014

[20] Yoshikawa, H. & Zigler, E. (2000). Mental health in Head Start: New directions for the twenty-first century. Early Education and Development, 11, 247-264.

[21] Fox, L. & Smith, B. (2007). Issue Brief: Promoting social, emotional, and behavioral outcomes of young children served under IDEA. Challenging Behavior, Retrived November 24, 2014 from www.challengingbehavior.org/do/resources/documents/brief_promoting.pdf

[22] Qi, C. H., & Kaiser, A. P. (2003). Behavior problems of preschool children from low-income families: Review of the literature. Topics in early childhood special education, 23(4), 188-216.

are societal consequences of setting children on a negative path, including exacerbating inequality. Resolving this issue will require an all-hands-on-deck approach and a shared responsibility between families, programs, and government at all levels. The most important steps programs, schools, and States can take in preventing, severely limiting, and ultimately eliminating expulsion and suspension practices in early childhood settings are combining developmentally appropriate and nondiscriminatory discipline procedures and policies, with targeted workforce professional development focused on promoting the social-emotional and behavioral health of all children and enhancing teacher and provider self-reflective capacity to prevent and eliminate biases in practice.

RECOMMENDATIONS FOR EARLY CHILDHOOD PROGRAMS

Develop and Clearly Communicate Preventive Guidance and Discipline Practices: In accordance with the first and second *Guiding Principles*, programs should establish developmentally appropriate social-emotional and behavioral health promotion practices, and discipline and intervention procedures. These practices and procedures should be clearly communicated to all staff, families, and community partners, and implemented consistently and without bias or discrimination. Preventive and discipline practices should be used as learning opportunities to guide children's appropriate behavioral development. Children's desired behavior should be reinforced and consequences for challenging behavior should be developmentally appropriate and consistent. Programs should pay distinct attention to the developmental appropriateness of both behavioral expectations and consequences for challenging behavior, given the substantial developmental and experiential differences among children birth through age five and the range of what is age-appropriate across this age range. Programs should also pay distinct attention to the language they use in shaping children's behavior and communicating with families. Language commonly used in the criminal justice system, such as the use of "probation plans" or "three strikes and you are out" frameworks, should not be applied to discipline frameworks in early childhood programs (e.g. "three bites and you are out"). These terms connote criminal behavior and inappropriately label children.

Program discipline procedures should provide specific guidance on what teachers and programs will do when presented with challenging behaviors, including specific teacher and staff responses, communication with families and caregivers, and consulting with mental health specialists, school counselors, and the child's medical home.[23] In addition, if the child is suspected of having a developmental delay, disability, or mental health issue, it may be appropriate to refer the child's parents to the mental health system, the State's early intervention program, or their local school for information regarding evaluation for services under the Individuals with Disabilities Education Act (IDEA) Part B or C programs. These systems can conduct an evaluation, so that if the child is eligible, he or she may receive the appropriate services and supports as soon as possible. Children eligible for services under Part B or C are also likely entitled to protections under Title II and Title III of the ADA, such that programs must make reasonable modifications to their policies, practices, or procedures to ensure that children with disabilities are not suspended or expelled because of their disability-related behaviors. [9,14,22,24]

Develop and Clearly Communicate Expulsion, and Suspension Policies: Currently, many early childhood programs do not have suspension or expulsion policies. However, some programs, like Head Start, have a long-standing and continuing practice to prohibit the expulsion or suspension of any child.

---

[23] The modern medical home is a home base for any child's medical and non-medical care. It is a cultivated partnership between the patient, family, and primary provider in cooperation with specialists and support from the community. A medical home is a home base for any child's medical and non-medical care. http://www.hrsa.gov/healthit/toolbox/Childrenstoolbox/BuildingMedicalHome/whyimportant.html

[24] The IDEA Part C program makes early intervention services available to children with disabilities, generally ages birth to age three (and at the State's option, beyond age three until kindergarten), and the IDEA Part B program requires States and their public agencies to make available a free appropriate public education to children with disabilities, beginning at age three and lasting through 21 depending on State law or practice. The IDEA Part B and Part C programs have different eligibility criteria and service requirements. IDEA Part B is codified at 20 U.S.C. 1401 1411-1419 and implementing regulations are at 34 CFR Part 300 and IDEA Part C is codified at 20 U.S.C. 1431 through 1443 and implementing regulations are at 34 CFR Part 303.

Early childhood programs are strongly encouraged to establish policies that eliminate or severely limit expulsion, suspension, or other exclusionary discipline; these exclusionary measures should be used only as a last resort in extraordinary circumstances where there is a determination of a serious safety threat[25] that cannot otherwise be reduced or eliminated by the provision of reasonable modifications, consistent with the second *Guiding Principle*. Even in such extraordinary cases, the program should assist the child and family in accessing services and an alternative placement through, for example, community-based child care resource and referral agencies. In addition, consistent with the third *Guiding Principle*, early childhood programs must ensure that discipline policies comply with Federal civil rights laws.[9,14,22]

Should a situation arise where there is documented evidence that all possible interventions and supports recommended by a qualified professional, such as an early childhood mental health consultant, have been exhausted – and it is unanimously determined by the family, teacher, program, and other service providers that another setting is more appropriate for the well-being of the child in question – all parties, including the receiving program, should work together to develop a seamless transition plan and use that plan to implement a smooth transition. If the child has a disability, including children receiving services under Part B of the IDEA, additional procedural safeguards and nondiscrimination requirements apply.[26] When making decisions about transitioning a child and family to another program, specific attention should be paid to ensure that the new program is inclusive[27] and offers a rich social context and opportunities for interactions with socially competent peers to ensure that children can optimize their learning, and develop their social skills alongside their peers in a natural environment. The program transitioning the child should also undergo a self-evaluation and identify systemic reforms and professional development actions they may take to prevent the need for such transitions in the future. The family should be encouraged to inform the child's primary health care provider so that developmental and health evaluations may be conducted and so the health care provider may serve as a coordinating support to the family.

Once appropriate policies and procedures are established, early childhood programs should clearly communicate them with all staff, families, health and mental health consultants, and community partners. Clear communication will enable program administrators, teachers, aides, and other staff to be consistent in their implementation of prevention and intervention strategies as well as their expulsion/suspension practices, and will ensure that all parties share the same information and operate with the same set of assumptions. Clear and consistent policies may reduce the likelihood of inconsistent, ad-hoc, or discriminatory decision-making and help address racial disparities by reducing subjective behavioral judgments that have been shown to contribute to racial discipline disparities in the K-12 context. [28]

All programs must ensure that the policies developed, and implementation of those policies, are in accordance with applicable State and Federal statutes. Such statutes include, but are not limited to IDEA, Title II of the Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act.

Access Technical Assistance in Workforce Development to Prevent Expulsion and Suspension: Teachers and support staff are the most critical ingredients of high-quality early learning programs. Several core program features, facilitated by a strong workforce, can assist in preventing, severely limiting, and ultimately eliminating expulsions and suspensions. In accordance with the first *Guiding*

---

[25] Determinations of safety threats must be based on actual risks, best available objective evidence, and cannot be based on stereotypes or generalizations.

[26] For children receiving services under IDEA, Part B, public agencies must comply with applicable requirements, including those in 34 C.F.R. § §§300.530 through 300.536, when considering discipline actions against a child with a disability as well as ED's Section 504 regulations. 34 C.F.R. §§ 104.4, 104.38. In addition, public entities must comply with Title II. 28 C.F.R. § 35.130(b)(7). For additional information about IDEA requirements,,, see the June 2009 Questions and Answers on Discipline Procedures, available at http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CQaCorner%2C7%2C

[27] An inclusive setting is a setting where all children, regardless of ability or disability, participate fully in program activities, learn together, and form meaningful relationships with one another.

[28] Skiba, R. J., Chung, C. G., Trachok, M., Baker, T. L., Sheya, A., & Hughes, R. L. (2014). Parsing Disciplinary Disproportionality Contributions of Infraction, Student, and School Characteristics to Out-of-School Suspension and Expulsion. *American Educational Research Journal*, *51*(4), 640-670.

Principle – create positive climates and focus on prevention – programs should strive to build their workforce's capacity in:

- Promoting children's social-emotional and behavioral health and appropriately addressing challenging behavior;
- Forming strong, supportive, nurturing relationships with children;
- Conducting ongoing developmental monitoring, universal developmental and behavioral screenings at recommended ages, and follow-up, as needed;
- Collaborating with community-based service providers, including the child's medical home, and connecting children, families, and staff to additional services and supports as needed;
- Forming strong relationships with parents and families;
- Having a strong understanding of culture and diversity;
- Employing self-reflective strategies and cultural awareness training to prevent and correct all implicit and explicit biases, including racial/national origin/ethnic, sex, or disability biases; and
- Eliminating all discriminatory discipline practices.

To prevent, severely limit, and ultimately eliminate expulsion and suspension practices, all program staff should have a strong set of skills; equally essential, however, is ensuring that they have access to additional support from specialists or consultants, such as early childhood mental health consultants, behavioral specialists, school counselors, or special educators. Such support would provide assistance in conducting more sophisticated evaluations; identifying additional services if needed for children, families, or staff; understanding and responding appropriately to other behavioral determinants in the child's life, such as exposure to traumatic events or stressors; developing evidence-based individualized behavior support plans for children who require them; and building greater capacity in teachers and staff to implement those behavior support plans and engage in self-reflective practice that can help prevent and eliminate potential biases in practice. Early childhood teachers who report regular access to such mental health and behavioral supports, report half the rate of expulsions than do teachers who report no such access. Unfortunately, only about one in five teachers report regular access to behavioral consultants of any type.[26] Practices like early childhood mental health consultation and positive behavior intervention and support, both of which generally consist of staff capacity building paired with external specialized support, have been shown to reduce and prevent expulsion and suspension in early learning and school settings, as well as reduce rates of teacher-rated challenging behaviors in young children.[29,30, 31] Appendices 1 and 2 contain additional information on early childhood mental health consultation and positive behavior intervention and support, respectively.

Finally, early childhood programs should promote teacher health and wellness and ensure that teachers work reasonable hours with breaks. Programs should have strong relationships with community-based service providers that can offer teachers additional social services, as needed, including health and mental health supports. Promoting teacher wellness may strengthen teachers' capacity to form strong nurturing relationships with children, as well as reduce teacher job stress, which has been shown to be predictive of preschool expulsions.[26]

Combined, workforce wellness, preparation and development, and access to expert supports, may assist programs in preventing, severely limiting, and ultimately eliminating expulsion and suspension in early childhood settings.

---

[29] Gilliam, W.S. (2007). Reducing Behavior Problems in Early Care and Education Programs: An Evaluation of Connecticut's Early Childhood Consultation Partnership. IMPACT series, Child Health and Development Institute, Farmington, CT.

[30] Hepburn, K.S., Perry, D.F., Shivers, E.M., & Gilliam, W.S. (2013). Early childhood mental health consultation as an evidence-based practice: Where does it stand? *Zero to Three, 33*, 10-19.

[31] Bradshaw, C., Mitchell, M., & Leaf, P. (in press). Examining the effects of school-wide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions*.

Set Goals and Analyze Data to Assess Progress:[32] Programs will progress at different paces in fully implementing consistent preventive practices, severely limiting, and eventually eliminating expulsion and suspension practices due to program variability in size and access to resources. In accordance with the third *Guiding Principle* – ensure fairness, equity, and continuous improvement – it is important that all programs set their own goals, monitor their data to assess progress, and modify their practices and investments, as needed, to reach their goals. Several types of data can be useful in assessing progress, depending on the specific goal. Some examples of useful data to collect include:

- Percentage of teachers with regular access to a behavioral or mental health consultant;
- Percentage of children who receive developmental and behavioral screenings on regular schedules;
- Percentage of children with challenging behaviors who have received a comprehensive evaluation for services under Part B or Part C;
- Number of behavior incident reports, broken down by child and setting characteristics;
- Number of suspensions and expulsions broken down by race, gender, and disability; and
- Number of suspensions and expulsions broken down by teacher/provider, class/group size, teacher-child ratio, and length of day.

Examples of goals may include:

- Provide professional development on social-emotional and behavioral health to all staff in one year; ensure that 50% of teachers have access to specialists or consultants in two years; ensure that all lead teachers have access to specialists or consultants in three years.
- Adopt a program-wide positive behavior intervention and support framework in one year.
- Reduce the number of total suspensions and expulsions program-wide by 50% in one year; eliminate all expulsions and suspensions, with exceptions only in extraordinary cases, in two years.

Make Use of Free Resources to Enhance Staff Training and Strengthen Family Partnerships: There are several currently and formerly Federally funded resources available free of charge that can assist in preventing, severely limiting, and ultimately eliminating expulsion and suspension. Resources include – but are not limited to – the National Resource Center for Health and Safety in Child Care and Early Education's *Stepping Stones to Caring for Our Children: National Health and Safety Performance Standards*, which can assist programs in establishing disciplinary and expulsion/suspension policies; HHS and ED's *Birth to Five Watch Me Thrive* materials, which can enhance developmental and behavioral screening practices in early learning settings; and materials from the *National Center on Early Childhood Mental Health Consultation*, *Center for the Social Emotional Foundation for Early Learning (CSEFEL)*, and the *Technical Assistance Center on Social Emotional Intervention (TACSEI)*, which can be used to bolster staff training on social-emotional and behavioral support for very young children. Programs should access and make use of these resources, as appropriate, to aid in their efforts to prevent, severely limit, end eventually eliminate expulsion and suspension practices. Appendices 3 and 4 offer resources for programs/teachers and families, respectively.

RECOMMENDATIONS FOR STATE ACTION

Develop and Clearly Communicate Expulsion and Suspension Policies: States are strongly encouraged to establish statewide policies, applicable across settings, including publicly and privately

[32] Note that, in some cases, public preschool programs may already be required to collect this data for purposes of the Civil Rights Data Collection (CRDC). The CRDC is a mandatory data collection, authorized under the statutes and regulations implementing Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and under the Department of Education Organization Act (20 U.S.C. § 3413). The regulations implementing these provisions can be found at 34 CFR 100.6(b); 34 CFR 106.71; and 34 CFR 104.61.

funded early childhood programs, to promote children's social-emotional and behavioral health and eliminate or severely limit the use of expulsion, suspension, and other exclusionary discipline practices; these exclusionary measures should be used only as a last resort in extraordinary circumstances where there is a determination of a serious safety threat[25] that cannot otherwise be reduced or eliminated by the provision of reasonable modifications, consistent with the second *Guiding Principle*. In addition, consistent with the third *Guiding Principle*, States must ensure that discipline policies comply with Federal civil rights laws.[9] Should a situation arise where there is documented evidence that all possible interventions and supports recommended by a qualified professional have been exhausted and it has been determined that transitioning a child to another program is necessary for the well-being of the child or his or her peers, the State should encourage programs to take a series of documented steps to ensure a smooth transition into another setting that offers a rich social context and opportunities for interactions with socially competent peers so that children's learning and social skills practice is optimized in a natural environment. If the child has a disability and is receiving services under IDEA, the State must ensure that additional applicable procedural safeguards and requirements are met. In addition, the State is responsible for nondiscrimination on the basis of disability in its programs in compliance with Title II of the ADA and Section 504 of the Rehabilitation Act.

These policies may be included in State child care licensing regulations, as some States have begun doing. Many States currently address behavior and discipline in their child care licensing regulations. Adding explicit policies on expulsion and suspension is an important next step.

These policies and procedures should be clearly communicated to all relevant parties, including programs, schools, families, community partners, and others. Under the reauthorized Child Care and Development Block Grant Act of 2014, States are required to disseminate consumer education information to parents, the general public, and child care providers. These efforts must include information about State policies regarding the social-emotional behavioral health of young children, which may include positive behavior intervention and support models, and policies on the expulsion of young children in early childhood programs receiving assistance under the Child Care and Development Fund (CCDF).

Set Goals for Improvement and Analyze Data to Assess Progress: States should work on building capacity to collect and analyze statewide data on expulsions, suspensions, and other exclusionary discipline practices. States are encouraged to coordinate data systems across early childhood programs and track their own information on early childhood workforce professional development or continuing education, access to behavioral or mental health specialists, investments and effects of prevention efforts, and expulsion and suspension from early childhood programs. These systems should also align with K-12 data systems. States are also encouraged to develop roadmaps to eliminating expulsion and suspension, informed by goals and data-driven progress monitoring. Goals may differ across States, but examples may include:

- Incorporate basic training on social-emotional and behavioral health in State entry-level credentials in one year; ensure 50% of community colleges and universities incorporate social-emotional and behavioral health, with guidance on real-world applicability, in teacher preparation programs in two years.
- Ensure that 25% of programs have access to early childhood mental health consultant within one year; ensure that 50% of programs have access to early childhood mental health consultant within two years; ensure that 100% of programs have access to mental health consultant within three years;
- Reduce the number of total suspensions and expulsions statewide by 25% within one year; 50% within two years; and 75% in three years.

Invest in Workforce Preparation and Development: States have a significant role to play in ensuring that the early childhood workforce has a strong knowledge base and skills, and access to behavioral

specialists or mental health consultants, to prevent expulsion, suspension, and other exclusionary discipline practices. The Child Care and Development Block Grant of 2014 directs States to use a percentage of funds on activities that enhance the quality of child care programs. Among the list of allowable quality enhancement activities are behavioral management strategies and training that promotes positive social-emotional development and reduces challenging behaviors and expulsion practices. States can strengthen their workforce through a variety of mechanisms, including:

State Entry-Level Credentials: Many States have established early childhood development credentials for entry-level providers and teachers. By including practice-based professional development in State entry-level credentials, focused on enhancing teacher and provider skills in promoting children's social-emotional and behavioral health and capacity to identify and eliminate biases, States can ensure that new providers, teachers, and support staff have the skills to appropriately support all children, enabling them to play an important role in eliminating expulsion and suspension.

Higher Education: States can work with their local institutions of higher education, including universities and community colleges, to ensure that a strong component of teacher preparation, including coursework and student teaching/internships, includes social-emotional and behavioral health promotion and self-reflection capacity to identify and eliminate biases.

Statewide Early Childhood Mental Health Consultation: States can leverage Federal, State, and private funding to implement statewide early childhood mental health consultation systems so that all early learning programs have access to a knowledgeable early childhood mental health consultant. Several States have funded early childhood mental health consultation systems, and the results of several evaluations of these systems using a variety of evaluative methods indicate strong effectiveness.[25,26] The *What Works* publication (2009) outlines several successful statewide systems of early childhood mental health consultation that can serve as models or roadmaps for States interested in developing or expanding their mental health consultation efforts (see Appendix 1).

State Endorsements for Infant, Early Childhood, and Family Mental Health Specialists: Some States have invested in endorsements that recognize a set of knowledge, skills, and competencies in infant and early childhood mental health. In providing a standard set of competencies, these endorsements help ensure a high-quality mental health workforce equipped with the skills to work with very young children and the adults who care for them.

Statewide Models of Positive Behavior Intervention and Supports (PBIS): States can adopt a PBIS framework. Through this, they can plan, implement and sustain a professional development system to enhance the knowledge and skills of the early childhood workforce in meeting the social-emotional and behavioral health needs of young children in inclusive and natural environments. Appendix 2 contains information on program-wide models of positive behavior interventions and supports.

Career Pathways: States can build early childhood career pathways that incorporate progressively advanced capacity in social-emotional and behavioral health promotion and self-reflection to identify and eliminate biases at each step in the career ladder. As with other knowledge and skills, students should demonstrate competencies in such content areas prior to advancement to the next step in their career.

Establish and Implement Policies Regarding Program Quality: Several factors related to the overall quality of early care and education programs are predictive of expulsion, suspension, and other exclusionary discipline practices. These quality factors should be targeted by States to both increase

overall quality of early learning services and reduce or eliminate expulsions, suspensions, and other exclusionary discipline practices. For example, staff qualifications should be high and professional development should be provided on an ongoing basis, including professional developmental that addresses social-emotional and behavioral development and exclusionary discipline practices. Programs should adhere to group sizes and child/adult ratios no greater than those recommended in the National Resource Center for Health and Safety in Child Care and Early Education's *Stepping Stones to Caring for Our Children*. Teachers should use developmentally appropriate, culturally and linguistically responsive practices and evidence-based curricula and create learning environments aligned with the State early learning and development standards. Children should have access to comprehensive services and individual accommodations and supports as needed. Health and safety standards should be implemented and programs should be evaluated to ensure continuous improvement.

Access Free Resources to Develop and Scale Best Practices: Several free resources are available to assist States in eliminating expulsion and suspension in early childhood settings. For example, technical assistance resources from centers such as the previously Federally funded *Center for the Social Emotional Foundation for Early Learning (CSEFEL)* and the *Technical Assistance Center on Social Emotional Intervention (TACSEI)*, offer helpful information for States interested in implementing statewide positive behavior intervention and support strategies; the *National Center for Early Childhood Mental Health Consultation* offers numerous resources on statewide early childhood mental health consultation systems; the *National Center on Culturally Responsive Systems* houses materials to enhance cultural responsiveness in educational settings; and *Stepping Stones to Caring for Our Children: National Health and Safety Performance Standards* provides guidance on establishing expulsion and suspension policies. Appendix 5 provides several free resources that States can access, as appropriate, to address expulsion and suspension practices.

CONCLUSION

Fostering the social-emotional and behavioral development of all children, and in doing so eliminating expulsion and suspension practices in early childhood settings, depends on strong partnerships between families, programs, and government, serious investments in workforce wellness, preparation and training, and development of appropriate and clearly communicated policies that are implemented consistently and without bias or discrimination across the diversity of young children represented in early learning settings. Those who serve our youngest learners have the responsibility and trust of setting infants, toddlers, and young children on positive trajectories. By reducing and ultimately eliminating expulsion and suspension through nurturing relationships and capacity building, with and on behalf of young children and their families, we can ensure that all of our youngest learners have the tools and experiences they need to thrive.

APPENDIX 1: Early Childhood Mental Health Consultation[33]

Early Childhood Mental Health Consultation (ECMHC) is a multi-level preventive intervention that teams mental health professionals with people who work with young children and their families to improve their social-emotional and behavioral health and development. ECMHC builds the capacity of providers and families to understand the powerful influence of their relationships and interactions on young children's development. Children's well-being is improved and mental health problems are prevented and/or reduced as a result of the mental health consultant's partnership with adults in children's lives. ECMHC includes skilled observations, individualized strategies, and early identification of children with and at risk for mental health challenges. The model also includes strengthening of the teacher-family relationship and connecting young children, teachers, and families to additional mental or behavioral health services, as needed. The amount of time a consultant spends with a program/teacher varies depending on need, but most programs range between three and six months, with visits once or twice a week. "Booster" or "follow up" sessions after primary consultation has occurred is common and recommended.

Empirical evidence has found that ECMHC is effective in increasing children's social skills, reducing children's challenging behavior, preventing preschool suspensions and expulsions, improving child-adult relationships, and identifying child concerns early, so that children get the supports they need as soon as possible. In addition, the model has been found effective in reducing teacher stress, burnout, and turnover. Preschool teacher stress and burnout have been previously associated with increased risk of expelling and suspending young children.[19] The resources below provide information and resources to implement ECMHC:

- Center for Early Childhood Mental Health Consultation
  http://www.ecmhc.org/

- Early Childhood Mental Health Consultation: Research Synthesis
  http://csefel.vanderbilt.edu/documents/rs_ecmhc.pdf

- Georgetown University Center for Child and Human Development: Early Childhood Mental Health Consultation
  http://gucchd.georgetown.edu/67637.html

- Issue Brief: Integrating Early Childhood Mental Health Consultation with the Pyramid Model
  http://challengingbehavior.fmhi.usf.edu/do/resources/documents/brief_integrating.pdf

- Resource Compendium: What Works? A Study of Effective Early Childhood Mental Health Consultation Programs

  http://gucchd.georgetown.edu/products/78366.html

- Promotion of Mental Health and Prevention of Mental and Behavioral Disorders
  http://store.samhsa.gov/shin/content/SVP05-0151/SVP05-0151.pdf

- What Works? A Study of Effective Early Childhood Mental Health Consultation Programs
  http://gucchdtacenter.georgetown.edu/publications/ECMHCStudy_Report.pdf

[33] The resources included in this Policy Statement are examples provided as resources for the reader's convenience. Their inclusion is not intended as an endorsement by ED or HHS. These resources are intended to promote discussion within the community of early childhood learning. The Departments cannot guarantee the accuracy of these resources or that these resources represent all of the relevant and up to date thinking in these areas. The opinions expressed in any of these materials do not necessarily reflect the positions or policies of ED and HHS, and the inclusion of references to these materials should not be construed or interpreted as an endorsement by ED or HHS.

APPENDIX 2: Positive Behavior Intervention and Support (PBIS)[33]

Program-wide positive behavior intervention and support (PBIS), traditionally practiced in school-based settings, is increasingly being implemented in early childhood settings, with promising results. Program-wide PBIS is a systems approach to establishing the social culture and behavioral supports needed for all children in a school or early childhood program to achieve both social and academic success. It is not a specific curriculum; rather it is a group of effective practices, interventions, and evidence-based implementation supports. PBIS strategies are typically organized into three progressively intensive tiers, with specific interventions being executed across primary, secondary and tertiary tiers. The process is facilitated by a knowledgeable behavioral consultant, who, in partnership with the program team, builds the capacity of school personnel to foster the social-emotional and behavioral development of all students.

There are PBIS frameworks specifically for young children. As an example, the Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children provides a tiered intervention framework for supporting social-emotional and behavioral development. The first tier includes practices to promote nurturing and responsive caregiving relationships with the child and high-quality supportive environments. The second tier includes explicit instruction in social skills and emotional regulation for children who require more systematic and focused instruction. The third tier is for children with persistent challenging behaviors that are not responsive to interventions at other tiers and involves implementing a plan of intensive, individualized interventions. The general application of program-wide PBIS in early childhood settings requires programs to establish a team, develop a set of behavioral goals, teach positive behavior, perform functional assessments of challenging behaviors, and use the assessment to construct individualized behavior support plans. For program-wide adoption, programs need administrative support to provide a sustained commitment and ensure training for staff, competent coaching, access to specialists in mental health and behavior, the use of process and outcome data for decision-making, and the development of policies and procedures that support the implementation of a PBIS framework.

In elementary schools, randomized control trials have found that program-wide PBIS reduced discipline referrals and suspensions, and improved fifth grade academic performance.[34] Studies have also found that the use of program-wide PBIS was associated with improved perception of school safety, and improvements in the proportion of students at third grade who met the state reading standard.[35] The emerging research in early childhood settings is promising. Results from the first randomized control study examining the Pyramid Model in early childhood settings found that children enrolled in the intervention classrooms demonstrated improved social skills and reductions in problem behavior.[36] A comparative study found increased positive child behaviors and decreased negative child behaviors in Pyramid Model classrooms, compared to control classrooms.[37]

The resources below provide information and resources to implement PBIS:

- Center on the Social and Emotional Foundations for Early Learning http://csefel.vanderbilt.edu/
- Technical Assistance Center on Positive Interventions and Supports https://www.pbis.org/
- Technical Assistance Center on Social Emotional Interventions http://challengingbehavior.fmhi.usf.edu/

---

[34] Bradshaw, C., Mitchell, M., & Leaf, P. (in press). Examining the effects of school-wide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools. Journal of Positive Behavior Interventions.
[35] Horner, R., Sugai, G., Smolkowski, K., Todd, A., Nakasato, J., & Esperanza, J., (in press). A Randomized Control Trial of School-wide Positive Behavior Support in Elementary Schools.Journal of Positive Behavior Interventions.
[36] Hemmeter, M.L., Synder, P., Fox, L., & Algina, J. (April 2011). Efficacy of a classroom wide model for promoting social-emotional development and preventing challenging behavior. Paper presented at the annual meeting of the American Educational Research Association. New Orleans, LA.
[37] Gettinger, M. & Stoiber, K. C. (2006). Functional assessment, collaboration, and evidence-based treatment: Analysis of a team approach for addressing challenging behaviors in young children. *Journal of School Psychology, 44*(3), 231-252.

APPENDIX 3: Resources for Parents and Families[31]

Preventing expulsion and suspension will require a strong partnership with families. Programs should treat families as the foremost experts on their children and as such, exchange information relevant to the child's culture, social-emotional and behavioral strengths and concerns, approaches to learning, and strategies that work at home. At a minimum, programs should ensure families have information on:

- Their child's health, behavior and development, especially social-emotional development, during the hours they are in their early learning setting;
- Developmental milestones, healthy development and behavior, and places to go for help;
- Identifying a high-quality early learning program; and
- Communicating with program or school personnel and advocating for their child.

Below are resources to share with families to facilitate this partnership and information sharing:

- **Child learning, social-emotional and behavioral development:**
  - Family Learning Activities and Games
    http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/for-families/Learning%20Games%20and%20Activities/Preschool%20Learning%20Activities%20and%20Games/home.html
  - Parents as Teachers
    http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/for-families/Everyday%20Parenting
  - Fostering Children's Behavioral Development
    http://challengingbehavior.fmhi.usf.edu/do/resources.htm
  - Fostering Children's Social and Emotional Foundations for Early Learning
    http://csefel.vanderbilt.edu/resources/family.html
  - Backpack Connection Series for Teachers and Caregivers
    http://challengingbehavior.fmhi.usf.edu/do/resources/backpack.html
  - Parenting Essentials
    http://www.cdc.gov/parents/essentials/

- **Developmental and behavioral milestones, monitoring, and screening:**
  - Milestones Moments
    http://www.cdc.gov/ncbddd/actearly/pdf/parents_pdfs/milestonemomentseng508.pdf
  - Free Tools to Track Your Child's Development
    http://www.cdc.gov/features/trackmilestones/
  - Birth to Five: Watch Me Thrive – For Families
    http://www.acf.hhs.gov/programs/ecd/child-health-development/watch-me-thrive/families
  - Developmental and Behavioral Screening Passport
    https://www.acf.hhs.gov/sites/default/files/ecd/screening_passport.pdf
  - Where to go if You're Concerned
    http://www.cdc.gov/ncbddd/actearly/concerned.html
  - Center for Parent Information and Resources
    http://www.parentcenterhub.org/
  - Parent Training and Information Centers for Parents of Children with Disabilities
    http://www.parentcenterhub.org/find-your-center/

- **Identifying a high-quality early learning program:**
  - Child Care Aware
    http://www.childcareaware.org/

APPENDIX 4: Resources for Programs, Schools and Staff[33]

The following resources offer support for superintendents, program directors, principals, teachers, providers, and other staff to prevent and eliminate expulsions and suspensions in early childhood settings.

- **Social-emotional and behavioral health**
  - Center on the Social and Emotional Foundations for Early Learning
    http://csefel.vanderbilt.edu/
  - Technical Assistance Center for Social Emotional Intervention
    http://challengingbehavior.fmhi.usf.edu/
  - Positive Behavior Intervention Support
    https://www.pbis.org/
  - Center on Early Childhood Mental Health Consultation
    http://www.ecmhc.org/
  - National Center on Health
    http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health

- **Universal developmental and behavioral screenings**
  - Watch Me! Celebrating Milestones and Sharing Concerns- Training for Teachers
    http://www.cdc.gov/ncbddd/watchmetraining/index.html
  - Birth to Five: Watch Me Thrive!
    http://www.acf.hhs.gov/programs/ecd/child-health-development/watch-me-thrive
  - Learn the Signs. Act Early
    http://www.cdc.gov/ncbddd/actearly/index.html

- **Partnering with community service providers**
  - Birth to Five: Watch Me Thrive! Community Guide
    https://www.acf.hhs.gov/sites/default/files/ecd/communities_guide_march2014.pdf
  - Legacy for Children: Public Domain Evidence-Based Parent Intervention
    http://www.cdc.gov/ncbddd/childdevelopment/legacy.html
  - Early Childhood Technical Assistance Center
    http://ectacenter.org/
  - Association of University Centers on Disabilities
    http://www.aucd.org/directory/directory.cfm?program=UCEDD

- **Forming strong relationships with parents and families**
  - National Center on Parent, Family, and Community Engagement: Resources and Guides
    http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/resources.html
  - Family and Provider/Teacher Relationship Quality Measures: User's Manual
    http://www.acf.hhs.gov/programs/opre/resource/family-and-provider-teacher-relationship-quality-measures-users-manual
  - National Association for the Education of Young Children: Engaging Diverse Families
    http://www.naeyc.org/familyengagement

- **Culturally and Linguistically Responsive Practice and Nondiscriminatory Discipline**
  - National Center for Cultural and Linguistic Responsiveness
    http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic
  - U.S. Department of Education Office of Civil Rights Data Collection
    http://wwww.ocrdata.ed.gov
  - U.S. Department of Education and Justice Dear Colleague Letter on Nondiscriminatory Administration of School Discipline
    http://www.ed.gov/ocr/letters/colleague-201401-title-vi.pdf

APPENDIX 5: Resources for States[33]

States play a key role in eliminating expulsion and suspension, by establishing developmentally appropriate policies, investing in the early childhood workforce, and relaying critical information to parents and programs. Below are several free resources States can access to assist in preventing and eliminating expulsion and suspension practices.

- Action Steps for Reducing Suspension and Expulsion in California Schools
  http://www.promoteprevent.org/sites/www.promoteprevent.org/files/resources/California_Action_Steps_May_2011.pdf

- Association of University Centers on Disabilities Research, Education, and Service
  http://www.aucd.org/template/index.cfm

- Center for Early Childhood Mental Health Consultation
  http://www.ecmhc.org/

- Early Childhood Mental Health Consultation: Research Synthesis
  http://csefel.vanderbilt.edu/documents/rs_ecmhc.pdf

- Georgetown University Center for Child and Human Development: Early Childhood Mental Health Consultation
  http://gucchd.georgetown.edu/67637.html

- National Center for Culturally Responsive Educational Systems
  http://www.nccrest.org/

- National Clearinghouse on Supportive School Discipline
  http://supportiveschooldiscipline.org/learn/reference-guides/positive-behavioral-interventions-and-supports-pbis

- Positive Behavior Intervention and Supports State Coordinator Network
  https://www.pbis.org/pbis-network

- Positive Behavior Interventions and Supports Technical Assistance Center
  http://www.pbis.org/

- Resource Compendium: What Works? A Study of Effective Early Childhood Mental Health Consultation Programs
  http://gucchd.georgetown.edu/products/78366.html

- Roadmap to State-wide Implementation of the Pyramid Model
  http://challengingbehavior.fmhi.usf.edu/do/resources/documents/roadmap_6.pdf

- State Planning Resources: Center on the Social and Emotional Foundations for Early Learning
  http://csefel.vanderbilt.edu/resources/state_planning.html

- State Planning Resources: Center on the Social and Emotional Foundations for Early Learning
  http://csefel.vanderbilt.edu/resources/state_planning.html

- State Work and Resources: Technical Assistance Center on Social Emotional Intervention
  http://challengingbehavior.fmhi.usf.edu/communities/TACSEIstates.htm

- Technical Assistance Center on Social Emotional Intervention
  http://challengingbehavior.fmhi.usf.edu/

- U.S. Department of Education Office of Civil Rights Data Collection
  http://wwww.ocrdata.ed.gov

- U.S. Department of Education and Justice Dear Colleague Letter on Nondiscriminatory Administration of School Discipline
  http://www.ed.gov/ocr/letters/colleague-201401-title-vi.pdf

- What Works? A Study of Effective Early Childhood Mental Health Consultation Programs
  http://gucchdtacenter.georgetown.edu/publications/ECMHCStudy_Report.pdf

Dialog, *16*(2), 34-52
Copyright © 2013.
ISSN: 1930-9325

RESEARCH ARTICLE

Improvement of Child Care Programs' Health and Safety Policies, and Practices, and Children's Access to Health Care, Linked to Child Care Health Consultation

Patricia Isbell, Jonathan Kotch, Eric Savage, and Elizabeth Gunn
University of North Carolina at Chapel Hill

Lydia Lu
Centers for Disease Control and Prevention

David Weber
University of North Carolina at Chapel Hill

Child care health consultation is a partnership between a health professional and a child care program that promotes a healthy and safe child care environment. This partnership involves on-site, internet and telephone consultation, health education, health promotion, and training and technical assistance. The objective of this study was to determine the impact of this partnership on the health and safety of children in 77 child care programs in one state. Data were collected on each child care program's written health and safety policies, children's health records, and staff health and safety behaviors.

The results demonstrate a statistically significant increase in the quality of written health and safety policies and health practices (sanitation/hygiene, nutrition/food service, playground safety and emergency preparedness). These improvements in policies and practices (defined by Alkon et al., 2006, as precursors of child health outcomes) led to improvements in children's access to a medical home, enrollment in health insurance, immunization status, and documented oral, developmental, vision, and hearing screenings.

The US experienced a dramatic and steady increase in the number of young children participating in out-of-home child care beginning in the 1970s (Federal Interagency Forum on Child and Family Statistics, 2010). This expanded use of child care increased young children's risk of illness due to the fact that children in group care are exposed to more pathogens than if they were cared for at home by their families (Churchill & Pickering, 1997; Hurwitz, Gunn, Pinsky & Schonberger, 1991; Aronson & Shope, 2009). Early childhood professionals across the nation dissatisfied with this increased risk of illness, called for improvements in the quality of child care particularly in the area of health and safety. In response to this national call to action, the American Public Health Association (APHA) and the American Academy of Pediatrics (AAP), published the first edition of Caring for Our Children: National Health and Safety Performance Standards;

Guidelines for Out-Of-Home Child Care Programs (CFOC) (AAP, APHA,1992). Two subsequent editions have been published (2002, 2011) with the National Resource Center for Health and Safety in Child Care and Early Education (NRC) as the third author. Among the CFOC standards is the recommendation that every out-of-home child care program have available the services of a Child Care Health Consultant (CCHC). A CCHC is "a licensed health professional with education and experience in child and community health and early care and education, preferably with specialized training in child care health consultation" (AAP, APHA, NRC, 2011).

Pediatric health and early childhood professionals supported the concept of child care health consultation, but an existing work force of trained professionals did not exist. Initial efforts designed to convince state/territory administrators of the importance of this service were mainly based on professional judgment (Dooling & Ulione, 2000; Dunderstadt & Cohen 2004; Evers, 2002; Ulione, 1997) and advocacy (Lucarelli, 2002). Many states were successful in establishing a CCHC role at the state level (mainly utilizing funds from the US Maternal and Child Health Bureau's "Healthy Child Care America Initiative"). However, attempts to establish child care health consultation at the local level were less successful. This lack of success may be attributed to financial constraints, but it could also have been due to the lack of scientific evidence for the efficacy of the role.

In response to the need for scientific evidence, initial investigations into the efficacy of child care health consultation explored areas that could be linked to specific child outcomes such as injury (Ulione & Dooling, 1997; Ulione, 1997), upper respiratory illness (Ulione & Dooling, 1997; Ulione, 1997) and mental health/challenging behaviors (Center for Mental Health Services, 2000; Alkon, Ramler, & MacLennan, 2003). Although value was found in promoting specific areas and activities of child care health consultation, a synthesis of the overall impact of the service was not addressed until Alkon, Fernzweig, To, Wolff, & Mackie (2009) examined the impact of child care health consultation on child care program policies and practices in California. They concluded that "child care health consultation can improve the written health and safety policies and may improve practices in child care centers" (Alkon, et al., 2009).

In an attempt to further explain the process of achieving positive child care health and safety outcomes, Alkon, To, Wolff, Mackie, & Bernzweig (2006) developed a stepwise model (Figure 1) based on a formative evaluation of the CCHC network in California. This model suggested that research must first reveal the impact of CCHC activities on the precursors of child health and safety outcomes before a link could be established to child health and safety outcomes. The precursors in the model, education of the child care staff and CCHCs, consultation between the CCHC and child care staff, development of health and safety policies that are in compliance with national standards, and improvement in child care staff practice, have been examined (Alkon, To, Mackie, Wolff, & Bernzweig, 2010; Alkon, Fernzweig, To, Wolff, & Mackie, 2009; Alkon et al., 2008; Farrer, Alkon, & To, 2007; Crowley & Kulikowich, 2009). However, a void continues to exist concerning evidence that child care health consultation improves child health and safety outcomes.

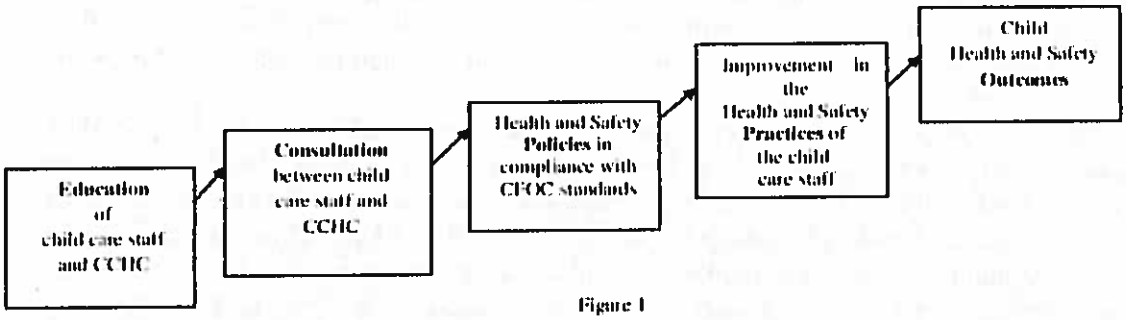


Figure 1

California Child Care Health Program's Stepwise Model of How Health Consultation Improves Children's Health (Alkon, 2006 Personal communication)

CCHC=Child Care Health Consultation

CFOC=Caring for Our Children, National Health and Safety Performance Standards. Guidelines for Early Care and Education Programs (1992, 2002, 2011)

An understanding of child health and safety outcomes (e.g., access to health care, immunization status, absences due to illness, and medically-attended injury rates) involves an evaluation of both formative (e.g., prevention activities that a CCHC delivers to the child care program such as health and safety trainings and provision of written or electronic resources) and summative (e.g., access to health care, immunization status, absences due to illness, and medically-attended injury) data. Yet, it is difficult to document that a specific preventive health measure taken with respect to a specific health risk actually prevented a specific individual from getting ill or injured. Thus, to determine the impact of child care health consultation prevention activities, the data collected over time must be aggregated at the child care program level (Hegland et al., 2011).

The study reported here addressed the aggregate effect of the prevention activities of CCHCs in North Carolina over two years of intervention. We hypothesized that child care health consultation would be associated with changes in child care program's policies and caregiver practices that were consistent with the CFOC standards, and that these changes would result in an improvement in children's access to preventive health care, immunization status, absences due to illness, and medically-attended injury rates. To control for variability in the quality of care

provided by the child care programs, a control variable, star rating, was added. The Public Health Review Board for the Protection of Human Research Subjects of The University of North Carolina at Chapel Hill approved all aspects of this study.

METHODS

This single group, quasi-experimental, pretest/post-test study was designed to investigate if child care health consultation was associated with improvements in child care policies and practices and in improvements in children's access to preventive health care and reductions in illness and injury.

In 2000, the Quality Enhancement Project for Infants and Toddlers (QEP), supported by the Division of Child Development of the North Carolina Department of Health and Human Services hired 15 CCHCs. The 15 QEP CCHCs provided health and safety consultation services to 23 counties across the state and also served as data collectors for the study. The size of the geographic area and the number of child care programs covered by an individual CCHC varied and ranged from seven rural counties with a total of 162 programs to one urban county with 565 programs. Regardless of the number of available child care programs, each CCHC recruited 25, non-federal programs for the study. The only criterion for involvement in the study was a willingness to participate. The CCHC then assigned an arbitrary number to each program to ensure the confidentiality of each of the child care programs. If there were more than 25 child care programs in a region, the CCHC chose the first 25 programs that agreed to participate in the study. The CCHCs collected baseline data from July 2000 until June 2001. The original 15 QEP CCHCs collected data on 141 child care centers, 113 child care homes, and 10 faith-based programs. Data were collected every six months, plus or minus two weeks between July 2000 and July 2003. Thus, each program had data collected for 24 months. By the time of the fourth follow-up, attrition among the CCHCs reduced their number from 15 to 13, and missed data collection opportunities (e.g., illness of a CCHC, transition of a CCHC, bad weather and/or car trouble) reduced the number of programs with data from all five collection points from 264 to 77 (34 centers, 41 homes and 2 faith-based programs). A total of 2,061 children were enrolled in the 77 eligible programs at baseline. 1,439 (70%) of their on-site health records were reviewed at baseline. By the fourth follow-up, records of 1,344 (60%) of 2,248 classroom enrollees were reviewed. Table 1 provides a summary of the number of children involved by age group at each data collection cycle.

TABLE 1
Children by Age Group and Data Collection Cycle

	Infants/toddlers enrolled	Infants/toddlers reviewed	Preschoolers enrolled	Preschoolers reviewed	School-age enrolled	School-age reviewed	Total enrolled	Total reviewed
Baseline	915	703	771	477	375	259	2061	1439
6 month follow-up	956	674	676	497	311	169	1943	1340
12 month follow-up	721	627	676	490	405	225	1802	1342
18 month follow-up	923	672	821	519	628	268	2372	1459
24 month follow-up	861	576	919	490	468	278	2248	1344
Number of programs= 77								

Instruments

Data collection involved three instruments: the *Daily Encounter Form* (*DEF*), the *Evaluation Summary*, and the *Evaluation Worksheet*. All of the instruments were developed by the project specifically for this study. Following baseline data collection, each CCHC provided health consultation to her 25 programs. At each programs' six month anniversary, data were collected again. Each instrument is described below.

Daily Encounter Form. The DEF, a process evaluation instrument, was designed to document the daily activities and length of time that CCHCs spent working with each child care program on specific child care health and safety topics. Upon completion of any type of consultation, the CCHC recorded the information on the *DEF*. Data collected on CCHC activities included whether the service was consultation (on-site, telephone, and internet/e-mail consultation), health education, training, community development (advocacy), requests for information, administrative tasks, non-child care activities, or direct health services. The *DEF* was necessary to maintain an accounting of the amount of consultation support provided by the CCHC to each child care program on the health and safety topics. This was to eliminate the potential confound that impact was due to differential levels of consultation.

Evaluation Summary. The second instrument had two sections. The first section was designed to collect outcome data on written health and safety policies and the second section involved an observation of the program staff's health practices.

The first section provided the format for recording compliance with national standards on nine health and safety policies selected from CFOC: hand washing, administration of medications, care of mildly ill children, exclusion of ill children, transportation safety, inclusion of children with special needs, cleaning and sanitizing, emergency preparedness, and staff health. Each policy was rated on a four-point scale (0-3). A score of 3 ("excellent") reflected a policy that matched the standard in CFOC. A score of 2 ("adequate") reflected a policy that met NC state licensing regulations but did not meet the CFOC standard. A "poor" score of 1 reflected that a policy existed but was not in compliance with either the national standard or the state licensing regulation. A score of 0 reflected the absence of a written policy.

Upon completion of baseline data collection, the CCHC worked with each program to improve its health and safety policies. As non-regulatory professionals, the CCHCs attempted to influence the policies through the provision of information, resources, and guidance. This involved: training sessions, examples of well-written policies, review of drafts of policies and recommendations. At each of the next data collection points this procedure was repeated.

3	2	1	0	Policy
Excellent	Adequate	Poor	None	
				Hand washing
				Administration of Medications
				Care of Mildly Ill Children
				Exclusion of Ill Children
				Transportation Safety
				Inclusion of Children with Special Needs
				Cleaning and Sanitizing
				Emergency Preparedness
				Staff Health

Figure 2. Evaluation Summary Part One-Policies

The second section of the *Evaluation Summary* reviewed health and safety practices: emergency preparedness, nutrition/food service, playground safety and sanitation/hygiene (Figure 3). The selection of these practices for review was based on *CFOC*. These four health and safety practices were scored on a scale of 0 to 3 based on observable criteria such as "disposable gloves are available". A score of 3 indicated a practice that was always observed, 2 indicated a practice that was observed more than half of the time, 1 indicated a practice that was observed half of the time or less than half of the time, and 0 indicated a practice that was never observed.

Upon completion of baseline data collection, the CCHC worked with each program to improve its health and safety practices. This involved: training sessions, observations, and corrective guidance. At each of the next data collection points this procedure was repeated.

Cronbach's α indicated adequate to high levels of internal consistency for both the health policy and health practices sections of the instrument. These scales were created for the nine health and safety policies combined ($\alpha = 0.92$) as well as for each of the four health or safety practices: sanitation ($\alpha = 0.90$), safe/active play ($\alpha = 0.91$), nutrition ($\alpha = 0.87$), and emergency preparedness ($\alpha = 0.90$).

Scoring reliability for these sections of the *Evaluation Summary* was determined by concurrent scoring of policies and observations of caregiver practices in the same child care programs by two senior QEP staff. The Project CCHCs were trained to 85% reliability by the same two senior QEP staff.

Always	Usually	Sometimes	Never		
				Sanitation	Disposable gloves are available
					Disposable towels are available
					A complete and accurate hand washing protocol is visible during the caregivers' hand washing process
					There is a designated diaper-changing area
					The diaper-changing surface is used only for diaper changes
					An adjacent sink is available for the caregiver(s) to wash hands without leaving the diaper-changing area
					A complete and accurate diapering protocol is visible during the diapering process
					Sanitizing solution for diaper-changing areas and/or eating surfaces is accessible and made fresh daily
					Food preparation and food service area are distinct from diapering areas
					There are separate sinks for food preparation and diapering
					Food is handled safely and stored properly
				Playground	Equipment and furniture are developmentally appropriate for typically developing children and children with special needs
					Playground and play equipment are accessible to children with special needs
					Equipment and furniture are sturdy, stable, and free of hazards
					Surfacing is appropriate for height of equipment and intended activities and is properly maintained Facility is on schedule with any corrective action plan for hazard abatement
					The indoor play area is designed to allow staff to observe and interact with children in all play areas at all times
					The outdoor play area is designed to allow staff to observe and interact with children in all play areas at all times
					The children participate in outdoor activities every day, except in extreme weather that would compromise a child's health
					Swimming pools and wading pools have access controlled exclusively by adults and are maintained and operated safely

(Continue)

Always	Usually	Sometimes	Never		
				Emergency Preparedness	Emergency procedures and evacuation plans are posted in visible locations
					Emergency procedures and evacuation plans include provisions for children with special needs
					Emergency drills are conducted regularly and documented
					Indoor environment is designed to prevent burns, poisonings, falls, and drowning
				Nutrition	Facility is participating in the Child and Adult Care Food Program (CACFP)
					Meal plans meet standards as per CACFP
					The names of children with specific dietary needs and those needs are posted in food preparation and food service areas

Figure 3. Evaluation Summary Health and Safety Practice

Evaluation Worksheet. The third instrument, the *Evaluation Worksheet*, collected outcome data at the child level by summarizing the health and attendance records of enrolled children. The CCHC recorded the number of children enrolled in each program and the number of those children who were reviewed in three age-specific groups: 1) infant/toddlers- aged 0-35 months; 2) preschool children-aged 36-59 months; and 3) school aged-children older than 60 months. These three groups were defined for two reasons. First, infants and toddlers are ill more frequently than older children due to immature immune systems and hand to mouth behaviors (Bartlett et al., 1985; Haskins & Kotch, 1986; Hurwitz, Gunn, Pinsky & Schonberger, 1991; Aronson & Shope, 2009). Second, school-aged children (those participating in the after school programs) are exposed to pathogens from groups of children outside of the study program (e.g., elementary school) (Aronson & Shope, 2009) and may be ill or injured as a result of the time that they spent in school. Twenty-five children's records in each program were randomly selected and reviewed for information on: absences; medically-attended injuries; health screenings; evidence of well-child physical; documentation of medical home[1]; documentation of health insurance coverage; documentation of emergency contact information; record of immunizations; documentation of special health needs and evidence of a medical care plan for children having a special health care need. The selection of these child outcomes for review was based on CFOC.

[1] Medical home is primary health care that is accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective (Hagen, Shaw & Duncan, 2008).

Emergency Contact on file	Record "yes" if there is a name, address, and telephone number of person to be contacted, choice of health care provider, preferred hospital; any chronic illness and any medication for that illness and any other information that has a direct bearing on assuring safe medical treatment for the child
Well-Child Physical on file	Record "yes" if there complete record of a well-child physical
Well-Child Physical in last year	Record "yes" if there if a well-child physical is recorded within the last year
Child with Special Needs	Record "yes" if there any record of special needs including an IFSP or IEP
Medical Care Plan on file	Record "yes" if there if a child has special needs and if there is a record of a medical care plan
Immunizations up to date	Record "yes" if there is a record of immunizations that is up to date based on recommendations in CFOC
Medical Home on file	Record "yes" if there if a medical home is listed [a medical home primary care that is accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective (Hagan, Shaw & Duncan, 2008)]
Dental Home on file	Record "yes" if there if a dental home is listed [a dental home is the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated and family centered way (American Academy of Pediatrics, 2003)]
Health Insurance on file	Record "yes" if there is a record that the child has health insurance (i.e., private health insurance, Medicaid, CHIP, CHAMPUS)
Number of Days Absent (Previous 2 months)	For each child, record the number of days absent when the center was open in the previous two months, for whatever reason
Number of Medically Attended Injuries (Previous 2 months)	For each child, record the number of medically injuries in the previous two months

(Continue)

	Screenings: for each screening listed, record the appropriate code					
	N = No	I = screening recorded but no record of outcome	Y = Yes but not positive	P = screening recorded and positive but no record of referral	R = screening recorded and positive, referral is pending.	C = screening recorded, referral complete.
Height and Weight Screening						
Hct or Hgb Screening						
Lead Screening						
Vision Screening						
Hearing Screening						
Speech or Language Screening						
Oral Screening						
Developmental Screening						
Hct- Hematocrit is a blood test that measures the percentage of the volume of whole blood that is made up of red blood cells. Hgb-Hemoglobin is a protein in red blood cells that carries oxygen						

Figure 4. Evaluation Worksheet - Access to Preventive Health Care

Data Analysis

Three covariates were defined and included in all analysis models: 1) the size of the program, 2) the proportion of infants and toddlers (0-35 months) enrolled, and 3) a measure of child care quality, the star-rated licensing level (North Carolina Division of Child Development, Star Rated License, 2003). Size was defined as "small" if a site had fewer than ten enrolled children; all other sizes were categorized as "other". The proportion of enrolled children who were infants and toddlers was divided into 2 groups, "less than or equal to 50%" or "greater than 50%". The five star-rated licensing levels were aggregated into three categories: scores of 1 or 2, a score of 3, and scores of 4 or 5. The star rating is assigned by the state agency that regulates and licenses the state's child care programs. The rating involved an extensive review of records (e.g., environmental health, staff training) and an observational assessment using the Early Childhood Environment Rating Scale: Revised Edition (Harms, Clifford, & Cryer, 1998). A rating of 4 or 5 indicated highest quality care, a rating of 1 or 2 indicated a low quality, and a rating of 3 indicated an acceptable level of quality. A description of the eligible programs at each time point is shown in Table 2.

TABLE 2
Descriptive Data on Eligible Child Care Programs

	Baseline	Follow-up 1	Follow-up 2	Follow-up 3	Follow-up 4
Number of Programs by Size					
Small (<10 children)	42	37	37	34	36
Other (>10 children)	35	40	40	43	41
Number of Enrolled Children at all Programs					
Small (<10 children)	249	217	223	204	202
Other (>10 children)	1812	1726	1751	2168	2046
Total	2061	1943	1974	2372	2248
Percent of Enrolled Children who are Infants/Toddlers					
Small (<10 children)	54%	56%	44%	51%	49%
Other (>10 children)	44%	48%	36%	38%	37%
Number of Programs by NC Star Rating					
Missing*	1	1	1	1	1
1	34	30	28	18	14
2	2	2	2	0	0
3	22	23	24	31	31
4	13	15	16	21	22
5	5	6	6	6	9

**Note:* One program was faith-based and not required by state licensure to have a star rating

The analysis data set consisted of 77 out-of-home child care programs that had data for the baseline visit and all four semi-annual follow-up visits. To check against a bias created as an artifact of site selection, a chi-square test for categorical descriptive variables and t-test for continuous descriptive variables were run comparing the 77 eligible programs to the 187 ineligible programs. The results of this analysis suggested that there was one statistically significant bias in the size of the eligible programs compared to the ineligible programs. Size was controlled for in the analysis. A comparison of the covariates between the 77 sites and the other 187 sites at baseline is shown in Table 3.

TABLE 3
Baseline Covariate Comparison between 77 sites and other 187 sites

		Programs with incomplete data (N= 187)	Programs with complete data* (N= 77)	Total	Chi-Square Test
Did the program have more than 50% infants/toddlers?	No	124	44	168	1.342
	Yes	60	33	93	
	Missing	3	0	3	
	Total	187	77	264	
Was the star rating 1 or 2?	No	102	40	142	0.144
	Yes	65	36	101	
	Total	167	76	243	
Was the star rating 4 or 5?	No	123	58	181	1.034
	Yes	44	18	62	
	Total	167	76	243	
Missing star rating	Total	20	1*	21	
Was total enrollment fewer than 10 children?	No	122	35	157	11.957***
	Yes	63	42	105	
	Missing	2	0	2	
	Total	187	77	264	

**Note*-One program, a faith-based center that is not required by state licensure to have a star-rating.

Rates of injury and rates of absence were also calculated. The rate of injury was calculated as the number of injuries per 100 child days based on weekly incident reports required by the state. The rate of absence was calculated as the average number of absences per child per month. The information on absences was collected from the attendance sheets in each child care program, also required by the state.

Hierarchical Linear Modeling (HLM) (Raudenbush & Bryk, 2002) was used to assess the linear change over time in these outcomes. HLM is widely used in the social, behavioral, and biological sciences to assess stability and change (Raudenbush & Bryk, 2002) when repeated measures are used. In addition to linear change over time, it was also important to assess absolute change between baseline and the final follow-up. This was done using a General Linear Model (ANOVA) to test the difference between each outcome at baseline and at the final follow-up visit.

RESULTS

The CCHCs had a positive impact on the nine written health and safety policies. On a scale from 0-3, the mean of the nine policy scores rose from 0.79 to 2.44 over 24 months ($p<0.001$). Similarly, all four health and safety practice scores increased (see Table 4). The improvement in the mean of each of the four scores was statistically significant ($p < 0.001$).

TABLE 4
Means for Health and Safety Policies and Practices

Domain	Outcome	Baseline	Follow-up 1	Follow-up 2	Follow-up 3	Follow-up 4	t-Test
Policies	Mean of 9 policies	0.79	1.32	1.78	2.20	2.44	20.29***
Practices	Emergency	2.24	2.67	2.82	2.89	2.88	9.35***
	Nutrition	2.57	2.60	2.61	2.78	2.77	3.78***
	Playground	2.26	2.51	2.69	2.79	2.81	10.59***
	Sanitation	2.27	2.64	2.73	2.79	2.89	10.48***

A 2-level hierarchical model with time point as the only model covariate.
Number of Programs= 77, *** $p < .001$

In addition to evaluating nine written health and safety policies and four health and safety practices, health and safety indicators from the children's records were also reviewed. Individual children were not tracked. The records reviewed were selected randomly and the number of records reviewed was based on the size of the program. In child care centers and family child care homes with fewer than 25 children, the CCHCs reviewed all of the children's records. In programs with 25 or more children, at least 25 records were randomly selected and reviewed by the CCHC.

Records of screenings performed in the previous six months for height and weight, hematocrit or hemoglobin, lead level, vision, hearing, speech or language, oral health, and development were coded. With the exception of statistically insignificant declines in recorded lead and hematocrit/hemoglobin screening, the proportion of children with screening information increased. Four specific screening tests demonstrated statistically significant increases: 1) developmental, 2) hearing, 3) oral, and 4) vision. (Table 5)

TABLE 5
Percentage of Children's Records with Indicator of Access to Preventive Health Care

Outcome	Baseline	Follow-up 1	Follow-up 2	Follow-up 3	Follow-up 4	t-Test
Emergency contact information on file	94.95	94.37	97.45	97.27	96.89	1.95+
Immunizations up-to-date	71.55	73.94	75.72	76.81	82.92	3.79**
Health insurance on file	47.77	57.59	65.72	64.71	63.61	4.51**
Medical home on file	90.01	92.11	93.22	94.44	96.96	3.68**
Well child physical in last year	44.27	39.64	40.08	41.84	43.86	0.17
Well child physical on file	84.11	85.40	87.68	85.92	87.18	1.30
Developmental screening	6.84	4.79	8.33	12.89	17.04	3.98**
Hct/Hgb screening	9.02	4.76	5.96	3.47	4.36	-2.27*
Hearing screening	6.40	13.97	17.33	29.17	36.39	8.16**
Height/ weight screening	46.92	40.36	43.21	48.74	48.04	1.21
Lead screening	2.56	1.25	1.22	1.71	1.62	-0.48
Oral screening	9.74	17.76	19.30	33.18	35.30	7.09**
Speech/language screening	2.71	3.44	3.61	4.48	7.02	2.40*
Vision screening	7.33	14.48	18.34	28.25	36.62	7.97**

+ $p < .10$, * $p < .05$, ** $p < .001$

Similarly, as Table 5 shows, the percentage of children with a medical home on record increased from 90.01% to 96.96% ($p < 0.001$). Those with recorded health insurance went up from 47.77% to 63.61% ($p < 0.001$), and those with up-to-date immunizations went from 71.55% to 82.92% ($p < 0.001$). Statistically non-significant increases were noted for children with well-child physicals on file (84.11% to 87.18%) and for those with emergency contact information on file (94.95% to 96.89%). There were not enough children with special needs to calculate reliable statistics for the proportion of all such children who had medical care plans on file.

Finally, the rate of child absences for any reason decreased from 0.88 per child per month at baseline to 0.66 one year later, but rose to 0.93 at 24 months. The rate of medically-reported injury showed no particular pattern, probably because of small numbers, starting at 0.02 per 100 child days at baseline, rising and falling and ending up at 0.03 at 24 months. Neither trend was statistically significant.

DISCUSSION

The data collected by the CCHCs in our study demonstrated that child care health consultation had a positive impact on health and safety policies and practices at the child care program level. The CCHCs also had an impact on indicators of health and access to preventive health care at the child level.

At the program level, the data indicated a positive impact on the quality and completeness of written health and safety policies based on state and national standards. This observation supports the conclusion of Ramler, Nakatsukasa-Ono, Loe, & Harris (2006) that, "child care health consultation appears to have a positive impact on the development and use of standards-

based health and safety policies in ECE (Early Childhood Education) programs". Similarly, we observed in a previous study that having written health and safety policies is associated with a reduction in severe diarrhea in child care centers, suggesting that improvement in written health and safety policies is a precursor to health status improvements in children (Kotch, et al., 1997).

The data also indicated a positive impact on observed health and safety practices at the program level. This observation is similar to the results of studies conducted by Alkon et al., (2002 & 2009), who used trained observers to measure compliance with the National Health and Safety Performance Standards in centers served by CCHCs. Statistically significant improved compliance was noted; however, it is difficult to compare the magnitude of Alkon's et al., (2002) improvements since Alkon et al. (2002) used a three point scale compared to the four point scale used in this study.

The most significant result of this study was the impact of the CCHCs at the child level. The data collected indicated small but important improvements in a child's reported use of medical care homes, health insurance coverage, recommended immunizations, screening tests, and well child physicals in the past year. The link between these indicators and the CCHC was that written health and safety policies require families interested in child care services to conform to the program's established policies. Policies guide, for example, the admission criteria (e.g., immunizations must be up to date) as well as requirements for current, valid, emergency medical information on all of the children (e.g., medical home on file). These two examples, established the link to the work of CCHCs on the written health and safety policies. Therefore, when guided by a CCHC, improvements in policies may be both statistically and practically significant to the children in child care. For example, over time this study demonstrated a steady increase in the percentage of children with up-to-date immunizations. To determine the actual increase, the number of children at baseline and at the fourth follow-up whose records were reviewed, was multiplied by the percentage of records with up-to-date immunizations (1439 X 71.55% and 1344 X 83%) (See Tables 1 and 5). The two resulting numbers subtracted from each other (1115-1029) yields 86 more children with up-to-date immunizations. These 86 children represented a 6% increase. When 6% is multiplied by the approximately 260,480 children in regulated out-of-home child care in NC (North Carolina Division of Child Development, 2011), 15,629 additional children would have been fully immunized, if child care health consultation services were available statewide. This same logic of steady increases over time can be applied to the other indicators of child health and safety: health insurance, medical home on file, screenings (developmental, hearing, oral and vision).

It is also apparent that the CCHC had an influence on the child care staff's health and safety practices. The influence was achieved by training on health and safety topics and by corrective guidance. Written policies and procedures developed in collaboration with the CCHC guided the change in the behaviors of the staff. The statistically significant improvement in staff practice in the areas of sanitation (e.g., hand washing, diaper-changing), playground safety (e.g., observation of all areas, developmentally appropriate equipment), emergency preparedness (e.g., evacuation plans, drills) and nutrition (e.g., nutrition standards) were all directly linked to the health and safety of the children in care.

Unfortunately, the results of the study did not demonstrate a consistent decline in either absences or medically-attended injuries among children in the study programs. The numbers of medically-attended injuries was probably too small to generate stable rates. As for absences, although they declined in the first year, there are numerous reasons why they may have bounced back in the second year. Some of the reasons may have included unpredictable infectious disease

outbreaks in the community, turnover of child care children and staff (and of the CCHCs themselves in some cases), and possible recording errors.

Limitations

Resource constraints precluded our following a comparison group of child care programs without CCHC services. Even if that had been possible, it is likely our funding agency or the programs themselves might have legitimately argued that withholding child care health consultation services would have been unethical. Another limitation was the lack of objective data collectors. Daily activity data and center- and child-level outcome data were collected by the CCHCs themselves, who, although trained to collect the data reliably and accurately, could not have been completely unbiased. Similarly, even though the 77 programs did not differ on important baseline characteristics from the entire sample of 264, it was possible that attrition may have introduced bias into the analyses.

The lack of a statistically significant decline in medically-attended injury (injuries that were examined by a physician) may have been the result of small numbers. The fact that the data were based on injury reports that were generated by the child care staff may have led to underreporting, a process that was noted by the state's regulatory staff (personal communications, 2004). The under-reporting may have been due to the fact that child care programs are penalized by the licensing agency if it is determined that injuries occur frequently.

The lack of statistically significant change in records of child absences may have been due to the fact that the data were collected from records compiled by the child care staff for administrative purposes and not generated by direct observation by the research staff.

Conclusion

The Association of State and Territorial Health Officials is on record as supporting public health agencies' expanding the use of CCHCs (Association of State and Territorial Health Officials, 2004). The data presented in this study provide early evidence that support the recommendation to expand this service. Future studies with larger numbers, comparison groups, and objective data collectors will strengthen the case for greater utilization of this new public health professional.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the contributions of Lisa Faison, Stephen Fowlkes, Kacey Hanson, Steve Hege, Jill Kerr, Emily Lu, Eloise Neebe, Abby Pinnix, Jasveer Virk, and the 15 Quality Enhancement Project CCHCs.

REFERENCES

Alkon, A., Sokal-Gutierrez, K., & Wolff, M. (2002). Child care health consultation improves health knowledge and compliance. *Pediatric Nursing, 28*(1), 61-65.

Alkon, A., Ramler, M., & MacLennan, K. (2003). Evaluation of mental health consultation in child care centers. *Early Child Education Journal, 31*(2), 91-99.

Alkon, A., To, K., Wolff, M., Mackie, J., & Bernzweig, J. (2006). Assessing health and safety in early care and education programs: Development of the CCHP health and safety checklist. *Journal of Pediatric Health Care, 22*(6), 368-377.

Alkon, A., Bernzweig, J., To, K., Farrer, J., Elman, J., Kunitz, J., and Frank, R. Child care health consultation programs in California: Results of a formative evaluation. (personal communication, 2012).Oakland, CA: California Child Care Health Program, UCSF School of Nursing.

Alkon, A., Bernzweig, J., To, K., Mackie, J.F., Wolff, M., & Elman, J. (2008). Child care health consultation programs in California: Models, services and facilitators. *Public Health Nursing, 25*(2), 126-139.

Alkon, A., Fernzweig, J., To, K., Wolff, M., & Mackie, J. (2009). Child care health consultation improves health and safety policies and practices. *Academic Pediatrics, 9*(5), 366-370.

Alkon, A., To, K., Mackie, J., Wolff, M., & Bernzweig, J. (2010). Health and safety needs in early care and education programs: What do directors, child health records and national standards tell us? *Public Health Nursing, 27*(1), 3-16.

American Academy of Pediatrics, American Public Health Association. (1992).*Caring for our children: National health and safety performance standards: Guidelines for out-of-home child care programs.* Elk Grove Village, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association.

American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care.(2002).*Caring for our children: National health and safety performance standards: Guidelines for out- of-home child care programs.* Elk Grove Village, IL: American Academy of Pediatrics; Washington, D.C.: American Public Health Association.

American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. (2011). *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Out-of-Home Child Care Programs.* Elk Grove Village, IL: American Academy of Pediatrics; Washington, D.C.: American Public Health Association.

American Academy of Pediatrics, Section on Pediatric Dentistry.(2003). Policy statement: Oral health risk assessment timing and establishment of the dental home. *Pediatrics, 111*, 1113-16.

Aronson, S.S. & Shope, T.R. (Eds.). (2009). *Managing Infectious Diseases in Child Care and Schools.* Elk Grove Village, IL: American Academy of Pediatrics.

Association of State and Territorial Health Officials. (2004). The role of state public health agencies in child care. MCH fact sheet. Washington, DC.:Author.

Bartlett, A., Moore, M., Gary, G., Surko, K., Erben, J., & Meredith, B. (1985). Diarrheal illness among infants and toddlers in day care centers. *The Journal of Pediatrics, 107*(4), 142-149.

Center for Mental Health Services, Substance Abuse and Mental Health Services Administration and Services.(2000)U.S. Department of Mental Health Consultation (monograph) Washington, D.C.: National Technical Assistance Center for Children's Mental Health, Georgetown University Child Development Center.

Churchill, R. B., & Pickering, L. K.(1997).Infection control challenges in child care centers. *Infectious Disease Clinics of North America,* June: *11*(2), 347-65.

Crowley, A., & Kulikowich, J.M. (2009).Impact of training on child care health consultant knowledge and practice. *Pediatric Nursing,35*(2), 93-100.

Dooling, M.V., & Ulione, M.S. (2000). Health Consultation in Child Care: A Partnership That Works. *Young Children, 55*(2), 23-26.

Dunderstadt, S., & Cohen, S. (2004). Child care: a crucial legislative issue. *Journal of Pediatric Health Care, 18*(6), 312-314.

Evers, D.B. (2002)The pediatric nurse's role as health consultant to a child care center. *Pediatric Nursing, 22*(3), 231-237.

Federal Interagency Forum on Child and Family Statistics. *America's Children in Brief: Key National Indicators of Well-Being,* (2010). Washington, DC: U.S. Government Printing Office.

Farrer, J., Alkon, A., & To, K. (2007). Child care health consultation programs: Barriers and recommendations.

Maternal and Child Health Journal, 11, 111-118.

Hagan, J.F., Shaw, J.S.& Duncan, P.M., (Eds.)(2008). *Bright futures: Guidelines for health supervision of infants, children and adolescents.* 3rd ed. Elk Grove, IL: American Academy of Pediatrics.

Harms, T., Clifford, R. M., Cryer, D. (1998). *Early Childhood Environment Rating Scale, Revised Edition.* New York, NY: Teachers College Press.

Haskins, R.H. & Kotch, J.B. (1986). Day care and illness: evidence, costs, and public policy. *Pediatrics.77*(No.6,Suppl),951-82.

Hegland, S.M., Aronson, S.S., Isbell, P., Benjamin, S., Rous, B. S. & Krajicek, M.J. (2011). Measuring health-related aspects of quality in early childhood settings. In M. Zaslow, Martinez-Beck & Halle, T. (Eds.), *Quality measurement in early childhood settings.* Baltimore, MD: Paul H. Brookes Publishing Co.(pp.135-160).

Hurwitz, E.S., Gunn, W.J., Pinsky, P.F., & Schonberger, L.B. (1991). Risk of respiratory illness associated with day-care attendance: A nationwide study. *Pediatrics, 87*(1), 62-69.

Kotch, J. B., Dufort, V.M., Stewart, P., Fieberg, J., McMurray, M., O'Brien, S., Ngui, E. M., & Brennan, M. (1997).Injuries among children in home and out-of-home care. *Injury Prevention*, 3, 267-71.

Lucarelli, P. (2002). Raising the bar for health and safety in child care. *Pediatric Nursing, 22*(3), 239-253.

North Carolina Division of Child Development. Sept. 2011. NC Childcare Snapshot. http://ncchildcare.dhhs.state.nc.us/general/mb_snapshot.asp#Demographics.

North Carolina Division of Child Development, Star Rated License. (2003). http://ncchildcare.dhhs.state.nc.us/parents/pr_sn2_ov_sr.asp.

Ramler, M., Nakatsukasa-Ono, W., Loe,C., & Harris, K. (2006). The influence of child care health consultants in promoting children's health and well-being: A report on selected resources. US Department of Health and Human Services, Maternal and Child Health Bureau, Health Resources Services Administration. Newton, MA. The Healthy Child Care Consultant Network Support Center at Education Development Center, Inc.

Raudenbush, S.W., & Bryk, A.S. (2002). *Hierarchical linear models: applications and data analysis methods* (2nd Ed.). Newbury Park, CA: Sage.

Ulione, M.S. (1997). Health promotion and injury prevention in a child development center. *Journal of Pediatric Nursing, 12*(3), 148-54.

Ulione, M.S., & Dooling, M. (1997). Preschool injuries in child care centers: Nursing strategies for prevention. *Journal of Pediatric Health Care, 11*(3), 111-116.